For Reference

THE UNIVERSITY OF ALBERTA

AN EXPERIMENTAL DEVELOPMENT   OF INSTRUMENTS

FOR THE MEASUREMENT OF ATTITUDES

A DISSERTATION

SUBMITTED TO THE SCHOOL OF GRADUATE STUDIES

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CHAPTER I

IMPORTANCE OF THE PROBLEM

The general problem

Few concepts in the whole field of social psychology
occupy a more nearly central position than does that of
attitude. What we term character is undoubtedly largely a
matter of attitudes. At least one text in social psychology
is built up around attitudes as the focal concept.[1]
Variously as the word attitude is defined, its paramount
importance as both a practical and a theoretical problem in
the study of human personality goes unchallenged.

Theoretically, so little is generally conceded that
one can scarcely do more than pose queries. The significant
relationships of attitudes to physiological and environmental
factors are obscure. It is distinctly possible that many
attitudes, even the most important, may prove to be so
personal, complex, subtle, variable and elusive as to pre-
clude objective classification, analysis, description and
evaluation. Studies which have been made leave unsolved
such problems as the following: Which of the various classi-
fications of attitudes, general and specific; private and
public; physical, emotional, and intellectual; person-to-
person, social, political, economic, religious, and philo-
sophical, best fit the facts? Which classifications are

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[1] Folsom, J.K., Social Psychology, Harper, 1931, 687 pp.

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most useful? Can statistical techniques for factor analysis[2]
be successfully employed to extract <u>attitude constellations</u>
or to disclose <u>individual frames of reference</u> or <u>social
matrices</u>. What is the biological basis of attitudes? What,
if any, are the laws of attitude development and what is
attitudinal maturity? Only by thorough investigation of such
problems can one hope for the growth and refinement of theor-
etical knowledge which is the <u>sine qua non</u> of scientific
prediction and control.

From a more narrowly practical viewpoint, problems
are equally numerous and demands are even more insistent.
Improved instruments for the analysis and measurement of
attitudes are urgently needed. Social psychologists, socio-
logists and political scientists need to study and evaluate
attitudes in order to; (1) delimit groups (2) compare groups
(3) trace changes in a given group (4) compare different
attitude objects. Abnormal psychology eagerly awaits more
precise information to provide clues for the better diagnosis
and adjustment of atypical behaviour. Modern education,
with its strong emphasis on personality and personality
factors such as attitudes, values and interests, makes it
imperative that no effort be spared to refine and standardize
the measurement of attitudes. Qualitative studies, however
painstaking, are incomplete, if not abortive, unless
supplemented by quantitative data of precision.

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[2]Thurstone, L.L., <u>Vectors of the Mind</u>, Psychological Bulletin,
1934, p.1.

The specific problem

Specifically, the main purpose of this investigation was the construction of scales to measure attitudes towards at least two of the following social problems: university education for those of at least average intelligence; war as a means of social progress; conscription of wealth in peace time; strict high school discipline; farming as a means of earning a livelihood; non-white collar jobs.

CHAPTER II

HISTORICAL OUTLINE

Early attempts at measurement

Because L. L. Thurstone's adaptation of psycho-physical techniques to attitude measurement marks a turning point in the study of attitudes, this sketch will be divided into two parts, first, pre-Thurstonian attempts at measurement and, second, the psychophysical methods of Thurstone and his collaborators.

Pre-Thurstonian instruments lend themselves to a four-fold categorization: 1. Questionnaires, 2. Case Studies, 3. Rating Scales, 4. Rank-orders. Manifestly, the use of these types has not ceased with the advent of psychophysical methods. The ensuing treatment stresses only those advances which have helped to pave the way for Thurstone's contributions.

Table I is an attempt to summarize in tabular form this heavy, fact-encumbered chapter.

Key to Columns 6 and 7, Table I

1. Reliability	7. Ease of Scoring
2. Validity	8. Ease of Interpreting Results
3. Sensitivity	9. Rationality of Unit of
4. Applicability of method	Measurement
to a wide Range of	10. General Objectivity
Attitudes	11. Standardization
5. Ease of Constructing Tests	12. Conformity with present
6. Ease of Administering	knowledge of Attitudes

TABLE I

SUMMARY OF HISTORICAL OUTLINE

1	2	3	4	5	6	7
of trument	Sub-type	Author	Object of Measurement	Date	Strong Points	Weak Points
stionnaire	a.Free answer b.Multiple-choice	(Watson,G.B. (Allport,G.W. ((Katz,D.end (Allport,F.H.	Fairmindedness Ascendance-sub-mission Social Attitudes	1925 1928 1931	4,5,6. 6,7. 1,3,4, 7,11. 4,5.	7,9,10,11. 4,8,9. 8,9,10. 3,7,8.
	c.Yes-No	Symonds,P.M.	Social Attitudes	1925	4,5,6,7.	2,3,8,9.
e Study	a.Extended	Thomas and Znaniecki	The Polish Peasant in Europe & America	1918	1,2,3, 12.	5,6,7,8,11.
	b.Curtailed				4,5,6.	7,9.
ing Scale	a.Multiple-choice	(Bogardus,E.S. (Porter, E. ((Jones, E.S. (Howells,T.H. (Dunlap & Snyder	Social Distance Pacifism-Militarism	1925 1926 1926	2,6,7,8. 2,3,4, 7,8. 3,7,4. 5,6,10.	9,10. 9. 9. 7,9. 8,9,11.
k Order	a.Absolute b.Relative	Moore & Symonds Allport,F.H.,& Hartman,D.A.		1925	5,10. 10.	3,6. 5,6,9.
cho-ysical ale	a.Equally-often-not-iced difference	Catell, J.M.	Eminence of Great Men	1914)))		
	b.Paired Comparisons	Thurstone,L.L.	(Seriousness (of offences (Social distance	1927)) 1927)	1,2,3,4.	
	c.Similar Reactions	Thurstone,L.L.		1929))	8,9,10, 11.	5,6,7.
	d.Equal-appear-ing Interval	Thurstone,L.L. & Chave, E.J.	The Church	1930)	12.	
	e.Scaled Response (Used Thur-stone Scales)	Likert, R.	Social Instit-utions and problems	1934	7.	
	f.Generalized	Remmers, H.H.	Any Social Action Any School Subject	1934	4.	1,2,3,10.

Questionnaires are of three forms, namely, the free
answer, the multiple-choice, and the yes-no types. The
widespread and long established use of the free answer
questionnaire in attitude testing, both incidental and formal,
scarcely needs comment.

G. B. Watson's Fairmindedness Scale,[3] 1925, is an
ingenious multiple-choice questionnaire which uses incon-
sistency of response as an index of prejudice. This test
implies the unwarranted assumption that an attitude which is
not extended to all objects (in this case, groups of people)
of the same class is inconsistent. In general, indirect
methods increase the danger of introducing undetected variables.
Such methods may, however, be advisable in investigating
socially condemned attitudes (such as prejudice) which are
probably not amenable to a direct approach.

G. W. Allport's Ascendance-Submission Scale,[4] 1928,
is a multiple-choice questionnaire with numerical values
arbitrarily assigned. The attitude tested should probably
be termed a personality trait. There are separate forms for
men and women. Norms and reliability coefficients are
available. Despite the lack of a rational scale unit, the
effort at careful statistical checking is noteworthy.

The most ambitious use of the multiple-choice question-
naire appears to be the famous Syracuse Reaction Study[3].

[3] Katz,D., and Allport,F.H., Students' Attitudes, A Report of
The Syracuse Reaction Study, 1931, p. 358.

[4] Allport, G.W., A Test of Ascendance-Submission, Journal
of Abnormal and Social Psychology, 1928, 23, 118-126.

Responses to each question were treated separately. It should be observed that Katz and Allport found it advisable so to word the questions as to conceal their real purpose and that, to preserve complete anonymity, no writing was permitted and no names were signed.

Among early yes-no questionnaires employed in attitude testing, that of P. M. Symonds is outstanding.[5] This Social Attitudes Questionnaire, 1925, proved very popular and has been widely imitated. Such scales are easy to construct and may be used to sample a wide range of attitudes. Their drawbacks are, however, many and serious. Since only a few items are subjectively judged, by a few persons, to bear on a given attitude, there is no objective assurance that all, or any, of the items are relevant to the variable which they purport to sample. Since there is no constant scale unit, individuals or groups can be truly compared only by responses to each separate item. This makes analysis and interpretation of the results cumbersome in the extreme. In short, such scales cannot be said to approach measurement in any scientific sense.

An early application of the historically old case study method to the investigation of attitudes was that of Thomas and Znaniecki,[6] whose work, The Polish Peasant in Europe and America, 1918, is a monument to their industry and insight. The number of case studies is now legion.

5. Symonds,P.M., A Social Attitudes Questionnaire, Journal of Educational Psychology, 1925, 16, 316-322.
6. Murphy, G., Murphy,L.B., & Necomb,T.M., Experimental Social Psychology, Harper, 1937, 839.

The case study appears to be the most fool-proof mode yet developed of studying attitudes in a changing milieu. Among its advantages may be listed the wealth of detail gathered, the possibility of checking hypotheses by further observation, the possibility of carrying out experiments, with or without the subject's knowledge, the opportunity to probe attitude _depth_, and lastly the chance to learn something about attitude origins. Against these advantages must be set two very serious limitations: only an expert can make the study, and the time required is exorbitant for most purposes.

A drastically abridged case study may be used with economy of time and some approach to objectivity when the response to a question is limited to, say, a short paragraph and is rated by several judges. Such _case studies_ are especially useful in checking the validity of other measuring instruments.

Among those who contributed to the development of the attitude rating scale were Bogardus, Porter, Howells, Dunlap and Snyder.

In 1925, Bogardus published his widely hailed multiple-choice rating scale for _social distance_.[7] Seven verbally defined degrees of intimacy are listed _a priori._ Obviously, no constant scale unit is assured. Nor is the scale rational in the rather exacting sense that every subject who expresses willingness to accept a given degree of intimacy accepts all

7. Droba,D.D., Methods of Measuring Attitudes, Psychological Bulletin, 1932, 29, 309-323.

lesser degrees of intimacy with the same object; scale steps
are frequently skipped. Legitimate comparisons between
individuals or groups may,nonetheless, be made, if each step
is treated separately. Thurstone has since obtained, by the
method of paired comparisons, results almost identical with
those of Bogardus. Murphy, Murphy and Newcomb[6] (pp.900-905)
are prompted to conclude that, "If not for all individuals,
then for large samples, at least, it remains true that if a
given group is not accepted in a given role, it will be
refused in all nearer roles" and that "This test does function
well as a scale." It is probably safe to call Bogardus's
scale the most significant single advance prior to Thurstone.

E.Porter,[3] in 1926, employed a device which has since
been widely imitated,- notably by Likert. The degree of favor
towards a given statement is indicated on a five-category
response scale. To establish validity and to eliminate non-
differentiating statements, Porter compared, for each statement,
the responses of one hundred persons of recognized overt
attitudes with scale ratings by a number of acquaintances.
On his Pacifism-Militarism scale a group of army reserve
officers and a group of extreme pacifists each made scores
markedly in the expected direction.

Porter's scale was modified by Jones and Howells[3].
In 1926, Jones[3] used numerical indices to show degrees of

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6. Murphy, Murphy & Newcomb, 900-905.
3. Katz and Allport, Student's Attitudes, 1931, 358-9,359---.

conviction.

Howells combined such numerical weightings with scale values on a 21-step scale.

Dunlap and Snyder[3] made a commendable attempt to construct an objective scale. They failed, however, properly to standardize the stimulus situation, inasmuch as each subject scaled his own responses. Two shortcomings are manifest: firstly, a subject may be a poor judge of his own position; secondly, each subject used his own subjective criteria in judging the meaning of the various scale positions.

All the rating scales reviewed above have certain serious defects in common. Ratings, whether by the subject himself or by others, are, to some extent, functions of the rater's personality and attitudes. Random selection of a large number of raters might give some measure of objectivity, but would meet with obvious difficulties. Droba believes that ratings by acquaintances are more reliable than self-ratings.[7] The validity of ratings is always questionable because of the possibility that something at once more conspicuous and more superficial than the true attitude may be rated.

Despite these criticisms, the great value of ratings is abundantly attested by their widespread use and popularity. Their practical advantages are many. They lend themselves readily to graphic representation; they are easy to construct and to understand; scale steps may be betokened by clauses,

phrases, single words, letters or numbers; if numbers are used they may be signed or unsigned, and the numbering may be altered at will; finally, many different attitudes may be studied, in a rough way, with great economy of time. Clearly, then, the rating scale is, in many respects, even more attractive than the multiple-choice questionnaire of which it is a special adaptation. Both are extremely useful in the absence of more objective measurements, and both can, as we shall see later, be rationalized by psychophysical techniques.

The fourth and final pre-Thurstonean method is that of rank-ordering. Rank-orders are of two types, absolute ranking and relative ranking.

Galton is believed to have been the first to apply absolute ranking to psychological data.[7] His objects of measurement were not attitudes, but images. Moore and Symonds[7] extended the method to attitudes. Taking each statement separately, the subject ranks his agreement in a number of steps. This number seldom exceeds five, because of the difficulty of making a decision when confronted by a large number of choices. The absolute ranking scale is easily and quickly constructed but only a few gradations of attitude can be indicated and no rational scale unit is provided. It will be seen that the absolute ranking scale is, essentially, but a multiple-choice questionnaire.

Allport and Hartman[6] have used the method of relative

7. Droba.
6. Murphy, Murphy & Newcomb, 939.

ranking. Spontaneously written statements on each of several issues were collected. Six judges then rank-ordered each set. The mean rank-order of each statement was converted to a scale value. It is well to distinguish between relative ranking of the Allport and Hartman type, in which the items ranked represent the attitudes themselves and relative ranking, as in Alberta elections, in which the items ranked represent the attitude objects. In either case, the subject may himself rank the items, or he may merely endorse or reject items previously ranked by judges. When the items are ranked before present-ation, scoring is easier and the subject need not be aware that the items are related. The relative ranking method of Allport and Hartman shares with all the instruments discussed so far a very fundamental and insidious weakness; it has no rational scale unit and does not, therefore, permit the plotting of legitimate frequency distributions for the study and comparison of different groups.

Psychophysical methods

J. M. Catell[8] appears to have been the first (work published in 1914) to extend psychophysical methods beyond the field of sensory experience. In estimating the eminence of great men, he was dealing with social stimuli the magnitudes of which would not yield to direct measurement. Catell,

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8. Thurstone, L.L., and Chave, E.J., The Measurement of Attitude, University of Chicago Press, 1930, 2.

accordingly, had recourse to a unit almost identical with the
equally-often-noticed difference.

Thurstone's principal methods are those of paired com-
parisons, similar reactions and equal-appearing intervals.

The method of paired comparisons,[9] in which every item
is a standard and comparison item, was originated by Fechner
and extended to attitudes by Thurstone. Crude use had already
been made of paired comparisons in evaluating such educational
products as handwriting and English composition. Thurstone
found the method very satisfactory for scaling the seriousness
of nineteen offences and for scaling the social distance of
a small group of nationalities. However, when many items
were to be scaled, Thurstone found this method extremely cumber-
some and exorbitantly time consuming. This is not surprising
in view of the fact that, where n is the number of items, the
total number of pairs to be compared is $\frac{1}{2} n(n-1)$ or $\frac{1}{2} (n^2-n)$.

The method of similar reactions,[10] also called the
method of attributes, purports to measure the functional simi-
larity of attitudes. It assumes that attitudes which tend to
co-exist in the same person are functionally similar. Thurstone
has worked out several indices of functional similarity; in
every case, the index is based on a comparison of the expected
or probable frequency of endorsation with the actual frequency.
The co-efficient of correlation is rejected, because it bears

9. Thurstone,L.L., The Method of Paired Comparisons for Social
   Values. J. Abn. & Soc. Psych. 1927, 21, 384-400.
10. Thurstone, L.L., Theory of Attitude Measurement, Psycho-
    logical Review, 1929, 36, 222-241.

no direct and constant ratio to the scale distance.

Thurstone finally selected a modification of the paired comparisons method and adopted as his scale unit the equal-appearing interval[8] (1-96). The equal-appearing interval technique had first been applied to sensory data by Delboeuf.[11] As extended to attitudes, it differs from the other psychophysical methods primarily in scale construction. The essential principle is that the intervals between successive attitude indicators on the scale must appear to the majority of judges to be approximately equal. Although very laborious to construct and vulnerable on several theoretical points, this type of scale is generally held to be the best yet developed.[11]

Interesting developments of the Thurstone technique have been made by Likert[12] and Remmers.[13] The former has investigated several scoring methods and concludes that a score which is based on both accepted and rejected items and assigns double weights to emphatically marked statements is more reliable than any of the mean or median scores used by Thurstone. Likert does not, however, believe that the gain is sufficient to justify the additional labor. Likert suggests another method of scoring which dispenses entirely with judges and weights responses only. Response weightings are based, as in his first score, on the

8. Thurstone & Chave.
11. Ferguson, L.W., The Requirements of an Adequate Attitude Scale, Psych. Bull., 1939, 36, 665-73.
12. Likert, R., Roslow, S., and Murphy, G., A Simple and Reliable Method of Scoring the Thurstone Attitude Scales, J. Soc. Psych., 1934, 5, 228-38.
13. Remmers, H.H., and Silance, E.B., Generalized Attitude Scales, J. Soc. Psych., 1934, 5, 298-312.

degree of conviction indicated. Scores obtained by this latter method save much time and are found to be no less reliable than those obtained by the former, and far more elaborate, method.

Remmers,[13] impressed by the vast number of attitudes to be measured, has, with his students, devised a number of master scales. The statements of these generalized scales are couched in general, vague, stereotyped, affectively colored terms. Each scale is designed to measure all attitudes of a given class, for example, any proposed social action or any school subject. The statements are, perforce, studiedly evasive of specific issues; the validity of the scales may, then, be held suspect. Disappointingly low reliability coefficients have been widely reported.[6]

Whereas this study borrows freely from Thurstone, Likert and Remmers, and subjects many of their ideas and devices to criticism, analysis and some statistical checking, further assessment of their contributions will be reserved for the last chapter.

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6. Murphy, Murphy & Newcomb, 905.

CHAPTER III

DEFINITION OF BASIC CONCEPTS

Attitude

Much confusion as to the precise nature of attitudes
is in evidence. Here are a few of the many definitions which
have been proposed: an opinion which involves a tendency to act[14];
the acceptance or rejection of a belief as embodied in a state-
ment[11]; a latent adjustment pattern toward some specific situ-
ation[15]; an emotional-ideoverbal system favorable or unfavorable
to some social situation[15]; Thurstone[8] writes, The concept
attitude will be used here to denote the sum total of man's
inclinations and feelings, prejudices or bias, preconceived
notions, fears, threats and convictions about any topic......
admittedly a subjective and personal affair. This last defin-
ition seems intended to encompass all the internal determinants
of action. In practice, Thurstone reduces attitude to degree
of affect towards a given object or symbol; he thus relieves
himself of the obligation to predict overt behavior and attempts
to justify the assumption, implicit in the use of scales, that
attitudes on a given issue lie in a linear continuum. A
widely quoted eclectic definition has been framed by G.W.All-
port.[16] An attitude is a mental and neural state of readiness,
organized through experience, exerting a directive or dynamic
influence upon the individual's response to all objects and
situations with which it is related. This definition has the

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14. Horne, E.P. Master's Thesis, Purdue Univ. 1936.
15. La Pierre and Farnsworth, Social Psychology, McGraw-Hill,
    1936, pp.221 and 236.
16. Allport, G.W. Personality, Holt, 1937.

twofold merit of being very comprehensive and at the same time
so strongly insisting upon the individual and upon the par-
ticular attitude object that it avoids all suggestion of that
utterly nonsensical concept, generalized behavior. The Allport
definition will be accepted for the purposes of this study.

It is well to note that, by this definition, attitudes
can be neither motives, habits nor personality traits. The
term motive involves the idea of causation, which is quite
distinct from attitude itself. Habit implies routinization and
refers to behavior; attitude refers only to the set or readi-
ness for behavior. A personality trait is a typical mode of
adjusting the self to the not-self, whereas an attitude is an
orientation towards some specific person, thing or relatively
restricted situation.

In recognition of the improbability that measuring
instruments can measure more than fragmentary aspects of
attitudes, as comprehensively defined by Allport, the term
attitude shall here, when used in reference to any given scale,
mean simply whatever is actually measured by that scale.
Threshold.- An important question implicit in all the above
definitions is that of threshold. At what point does an attitude
lose its identity in an act? What can a tendency to act be,
if not itself an act? Surely the only completely latent
attitude would be no attitude at all. Here is a tentative
definition: threshold shall mean that point at which, or that
range within which, the attitude indicating behavior becomes
sufficiently overt to be clearly observed.

Object.- A concept apart from which the word attitude has no
meaning is that of attitude object. Again problems arise.
Is a generalized attitude towards a number of related objects
possible, or would such an orientation be properly called a
personality trait? Can the same attitude ever be transferred
from one object to another? What becomes of the attitude when
the object is a situation which changes in time? (And what
situation does not?) Conceding that attitudes may vary in
time, in place, in scope, and in intensity as the object pattern
changes, we shall label as personality traits only such neural
and mental sets as persist through relatively long periods of
time and apply to a relatively wide variety of objects. This
very elastic definition will make much overlapping inevitable
and create a need for many arbitrary decisions; it seems, how-
ever, as precise as present knowledge warrants.

The word object is here chosen in preference to Thurs-
tone's topic and Allport's situation. As Remmers points out,[14]
object, viewed in the grammatical and logical sense which
opposes it to subject, is broad enough to comprehend both
situation and topic as well as single concrete objects. In a
word, it will cover anything towards which an attitude may be
directed.

CHAPTER IV
THE PROCEDURE
Collection of statements

The first step in preparing the attitude scales was the collection of statements. The members of a graduate class in education were given a short time in which to write a few statements on each of the attitude variables. It was pointed out that every statement should embody a clear-cut attitude on the variable in question, that a wide range in degree of favor or disfavor was desired, and that statements need not necessarily express the writer's own opinion.

These statements were examined for their affective, pro-con continuum value; and, as the conscription of wealth, the high school discipline, and the university education lists appeared to hold greatest promise, they were chosen for development. Lists of approximately a hundred statements on each issue were compiled (Appendix I). In an effort to avoid the introduction of subjective factors, and in accordance with the Thurstone technique, practically no editing was done, beyond clipping excessively long statements and breaking down sentences which obviously contained several very different ideas. (It later became apparent that ruthless criticism and revision at this point could have prevented much subsequent travail.)

Scaling of statements

The account immediately following of the scale building procedure does not apply to the discipline statements which were treated in a different manner to be described later.

To scale the attitude indicators and to eliminate
ambiguous items, Thurstone's equal-appearing interval technique
was adhered to in all essentials. (See instructions, Appendix
I). The sorting procedure was, however, modified in the
following minor respects: 1. Instead of placing the statements
in different piles, the serial number of each statement was
placed in one of nine columns. 2. Nine, rather than eleven,
scale steps were used. 3. Neutrality of attitude, instead of
the extreme con position, was taken as the scale origin; con
statements were, accordingly, given negative values. In ob-
servance of Thurstone's precepts, verbal labelling of the scale
steps was eschewed; readers were explicitly requested so to
sort the statements that the attitude difference between any
two successive positions would appear constant; they were also
apprised that it was not necessary to get even approximately
the same number of statements in each column.

Elimination of ambiguous statements

Elimination of ambiguous statements was attempted in
the following manner. First of all the sorting distribution
of each statement was counted. To get rid of those forms
showing very perfunctory sorting, a red circle was drawn
around the number of any statement that was atypical by five
or more scale steps; as soon as any form showed three red
circles it was discarded. The following parameters were obtained:
the median, the first quartile, the third quartile and the
interquartile range (Q-value). All statements showing bi-

modal distributions or high Q-values were eliminated.

In both scales, a paucity of neutral and near-neutral statements was at first found. A number of general statements, of the Remmers' master scale type, were then composed, the scale intervals into which it was hoped they would fit being borne in mind. Most of these statements, when submitted to the judges, very obligingly fell into the desired intervals and yielded low Q-values. The judges were not told why the additional statements were submitted; they were merely asked to scale them by the criteria previously employed.

Table II and Figure 1. show median scale position and Q-values for all the conscription of wealth statements. Only statements falling below the red line were used in the trial scale forms. The thirty-four items indicated by red X's were assigned to Form A; those indicated by blue X's went to Form B. Items marked by green X's were not used at all. Scrutiny of the scatter diagram will reveal that the alternate forms, A and B, are quite well equated as to both scale positions and Q-values. Obviously, the statements are by no means free from ambiguity. They do, however, compare very favorably with those of Thurstone who found it necessary to include in his final scales Q-values up to 2.2 (on an 11-step scale).

Figure 2 shows in parallel the dispersion of scale values on alternate forms of the conscription of wealth trial scale. The two forms were not set up separately.

TABLE II

SORTING DISTRIBUTION OF ORIGINAL
CONSCRIPTION OF WEALTH STATEMENTS

Statement No.	Median Scale Position	Q-Value	Statement No.	Median Scale Position	Q-Value	Statement No.	Median Scale Position	Q-Value
1	0.6	2.0	36	2.0	1.3	71	-3.4	1.2
2	-3.7	1.1	37	-2.4	1.6	72	2.4	1.6
3	1.7	1.2	38	-2.4	2.2	73	2.2	1.6
4	-2.4	3.9	39	-3.8	0.8	74	3.5	1.2
5	-3.6	1.3	40	-2.0	2.7	75	3.2	1.5
6	3.1	1.4	41	3.6	1.2	76	2.9	1.3
7	2.8	1.7	42	2.3	1.1	77	1.3	1.6
8	2.7	1.3	43	3.9	0.6	78	1.8	1.7
9	3.9	1.2	44	-3.5	1.3	79	2.6	2.2
10	2.3	2.9	45	-3.1	0.9	80	0.0	0.5
11	1.8	2.6	46	-3.2	1.4	81	2.5	1.3
12	2.7	1.5	47	-3.3	1.2	82	2.7	1.2
13	-1.7	2.3	48	2.8	1.5	83	1.7	1.9
14	-2.8	1.5	49	2.6	2.6	84	1.7	1.7
15	2.8	1.2	50	-0.8	1.8	85	2.1	1.5
16	-1.5	2.6	51	2.0	2.4	86	2.3	1.4
17	1.0	0.6	52	1.7	1.2	87	2.8	1.5
18	1.0	0.8	53	2.7	1.3	88	-1.2	0.8
19	-1.0	1.3	54	1.3	1.6	89	-1.4	1.1
20	3.0	0.8	55	0.0	1.1	90	-1.5	4.6
21	2.5	1.2	56	3.3	1.1	91	-1.4	1.0
22	-2.3	1.5	57	0.9	0.7	92	-1.2	1.2
23	-2.8	1.9	58	-0.5	1.5	93	-1.7	1.2
24	2.0	0.9	59	0.8	1.5	94	-1.2	0.9
25	2.2	1.4	60	1.0	0.9	95	0.7	1.1
26	2.8	1.8	61	1.7	1.5	96	-1.7	1.2
27	2.9	1.5	62	2.2	1.5	97	-1.0	2.0
28	2.3	1.4	63	-2.6	1.3	98	-0.4	1.1
29	2.5	1.4	64	3.0	1.3			
30	-2.3	1.3	65	-2.4	1.5			
31	-3.2	1.3	66	0.8	2.1			
32	-3.4	1.4	67	-2.9	1.1			
33	-2.5	1.2	68	-0.6	2.3			
34	-3.7	1.3	69	-1.0	0.8			
35	2.1	2.3	70	-1.9	2.2			
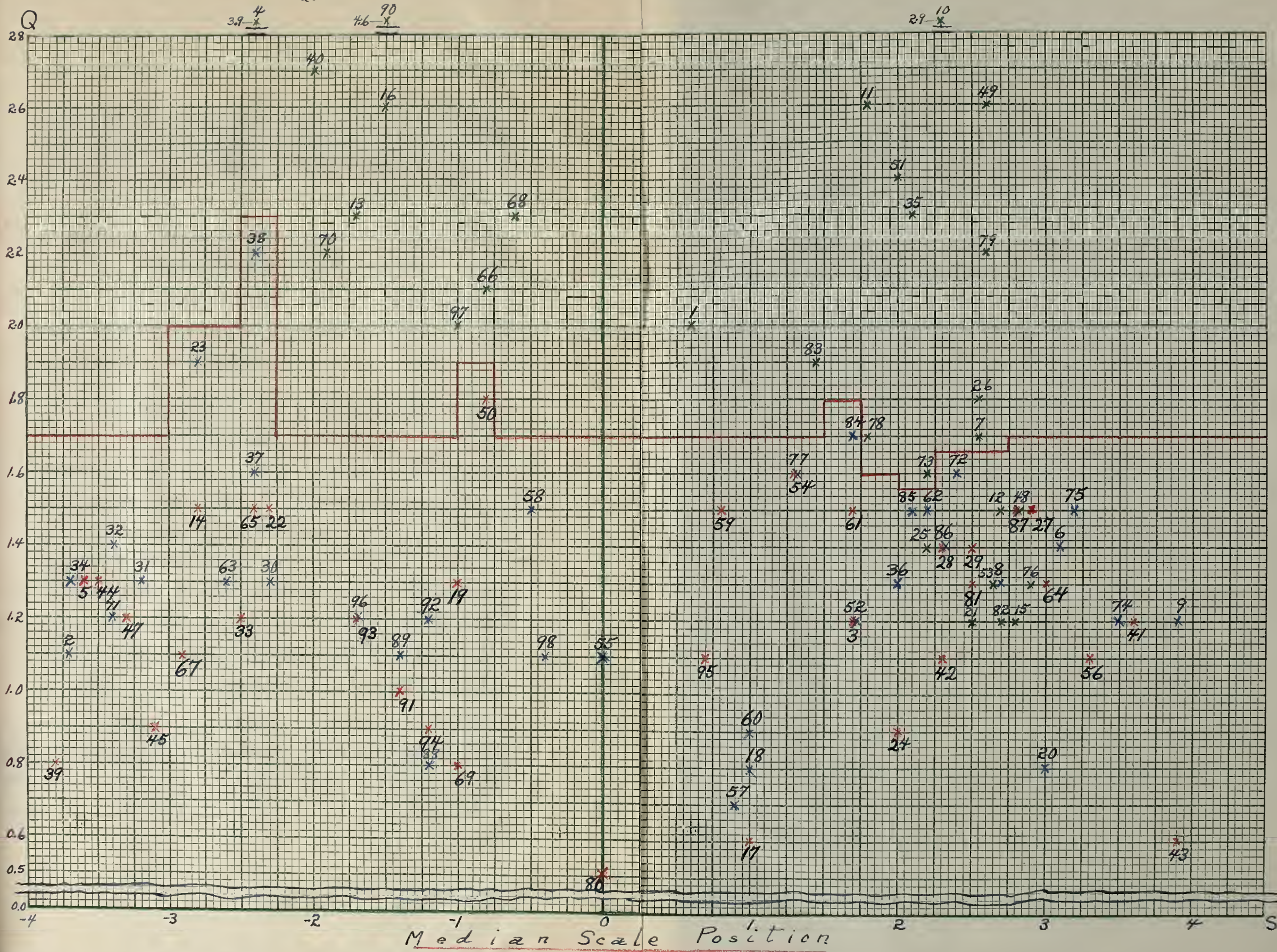
Figure 1. — Scatter Diagram of Conscription of Wealth Statements.
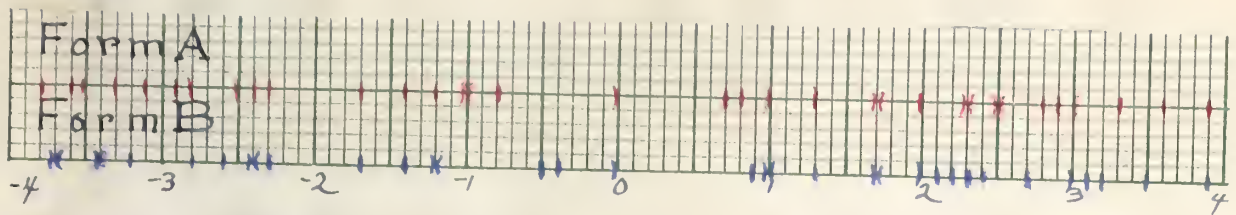
Figure 2.- Scale Positions on First Trial Forms
Conscription of Wealth Scale.

This figure reveals that the dispersion of statements along either form is far from uniform; there is, however, some approximation to bisymmetry.

Elimination of irrelevant statements

The next problem was to weed out statements which, because of irrelevance or for any other reason, were not marked in accordance with the subject's general attitude. Thirty-two grade XII pupils filled in the two forms; a total score (A$\not\!{}$ plus D$\not\!{}$,see pages 29-30) was calculated for each subject. Every marking which differed in sign from the marker's total score was arbitrarily called inconsistent. The number of such markings per statement is shown in columns 3 and 9 of Table III. Weights attached for the computation of columns 6 and 12 were as follows:

Scale Interval	- 0. to - 0.9	-1. to - 1.9	-2. to -2.9	- 3. to - 3.9
Assigned Scale Value	- 0.5	- 1.5	- 2.5	- 3.5
Weight	0.5	1	1.5	2

TABLE III

INCONSISTENCY OF MARKING, CONSCRIPTION OF WEALTH SCALE, FIRST TRIAL FORMS

1	2	3	4	5	6	7	8	9	10	11	12
Form A						Form B					
Statement No. New	Old	Inconsistent Markings	Scale Value	Weight	Weighted Inconsistency	Statement No. New	Old	Inconsistent Markings	Scale Value	Weight	Weighted Inconsistency
1	3	7	1.5	1	7	1	2	3	-3.5	2	6
2	5	8	-3.5	2	16	2	6	8		2	16
3	14	14	-2.5	1.5	21	3	8	4	3.5	1.5	6
4	17	10		0.5	5	4	9	7	2.5	2	14
5	19	5	0.5	1	5	5	18	21	3.5	0.5	10.5
6	22	7	-1.5	1.5	10.5	6	20	9	0.5	1.5	13.5
7	24	9	1.5	1	9	7	23	7	2.5	1.5	10.5
8	27	12	2.5	1.5	18	8	30	5	-2.5	1.5	7.5
9	28	13	2.5	1.5	19.5	9	31	6	3.5	2	12
10	29	9	2.5	1.5	13.5	10	32	4	-3.5	2	8
11	33	9	2.5	1.5	13.5	11	34	3	-3.5	2	6
12	39	5	-2.5	2	10	12	36	13		1	13
13	41	8	-3.5	2	16	13	37	15	1.5	1.5	22.5
14	42	18		1.5	27	14	38	2		1.5	3
15	43	10	3.5	2	20	15	52	13	1.5	1	13
16	44	5	3.5	2	10	16	55	14		0.5	7
17	45	6	3.5	2	12	17	57	24		0.5	12
18	47	8	-3.5	2	16	18	58	17		0.5	8.5
19	50	12	-0.5	0.5	6	19	60	13	-0.5	0.5	6.5
20	54	15		1	15	20	62	4	-0.5	1.5	6
21	56	4	1.5	2	8	21	63	8		1.5	12
22	59	10	3.5	0.5	5	22	71	3	-2.5	2	6
23	61	12	0.5	1	12	23	72	5	-3.5	1.5	7.5
24	64	5	-1.5	2	10	24	74	4		2	8
25	65	9	3.5	1.5	13.5	25	75	4	2.5	2	8
26	67	8	-2.5	1.5	12	26	77	2	1.5	1	2
27	69	14	-0.5	0.5	7	27	84	27	1.5	1	27
28	80	29	-0.5	0.5	14.5	28	85	8	2.5	1.5	12
29	81	9		1.5	13.5	29	86	7	2.5	1.5	10.5
30	87	14		1.5	21	30	88	1		1	1
31	91	6	-1.5	1	6	31	89	0	-1.5	1	0
32	93	8	-1.5	1	8	32	92	4	-1.5	1	4
33	94	2	-1.5	1	2	33	96	4	-1.5	1	4
34	95	20	0.5	0.5	10	34	98	4	-0.5	0.5	2

Second trial scale, conscription of wealth

The second trial forms, of twenty-two statements each,
are chosen from those statements which have their weighted in-
consistencies in columns 6 and 12 (Table III) checked in red.
It will be seen that, although these weighted inconsistencies
range from 0 to 27, none higher than 16 were accepted.

Table IV shows scale values and Q-values for the
second trial forms. (Append.II). With one exception, the high-
est Q-value accepted was 1.6. Reference to Table III, column
12, will show that this statement, No. 38 on the original list,
was marked with exceptionally low inconsistency.

TABLE IV

SECOND TRIAL SCALE, SCALE VALUES AND Q-VALUES

1	2	3	4	5	6	7	8
Form A				Form B			
Statement No.		Scale Value	Q-Value	Statement No.		Scale Value	Q-Value
New	Original			New	Original		
1	22	-2.5	1.5	1	30	-2.5	1.3
2	72	2.5	1.6	2	15	2.5	1.2
3	60	0.5	0.9	3	95	0.5	1.1
4	39	-3.5	0.8	4	44	-3.5	1.3
5	89	-1.5	1.1	5	19	-1.5	1.3
6	24	1.5	0.9	6	36	1.5	1.3
7	41	3.5	1.2	7	74	3.5	1.2
8	80	-0.5	0.5	8	98	-0.5	1.1
9	67	-2.5	1.1	9	63	-2.5	1.3
10	3	1.5	1.2	10	77	1.5	1.6
11	61	1.5	1.5	11	64	3.5	1.3
12	56	3.5	1.1	12	96	-1.5	1.2
13	92	-1.5	1.2	13	52	1.5	1.2
14	32	-3.5	1.4	14	45	-3.5	0.9
15	62	2.5	1.5	15	8	2.5	1.3
16	55	-0.5	1.1	16	58	-0.5	1.5
17	75	3.5	1.5	17	9	3.5	1.2
18	33	-2.5	1.2	18	38	-2.5	2.2
19	59	0.5	1.5	19	17	0.5	0.6
20	71	-3.5	1.2	20	34	-3.5	1.3
21	85	2.5	1.5	21	86	2.5	1.4
22	94	-1.5	0.9	22	88	-1.5	0.8

Total 26.4
Average 1.20

Total 27.6
Average 1.25
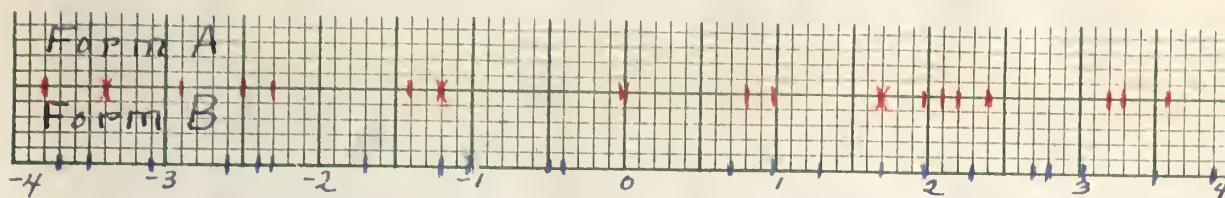
Figure 3.- Scale Positions on Second Trial Forms.

The two forms of this second trial scale were set up separately. Two hundred copies of each were mimeographed and administered to high school and university classes, criticisms being invited. The high school students had very few critic- isms and appeared to have little difficulty in making decis- ions. The university students, in many cases, clamored for definition of terms, insisting that many statements were ambiguous or vague. Although, as has been observed, state- ments were originally chosen for affective value rather than for logical denotation, it now became apparent that, if the scales were to be of use with adults or advanced students, denotations must be made far more precise.

Comparison of scoring methods

A major problem was that of selecting the most ad- vantageous scoring method. No general agreement existing among investigators in the field, it was decided to try out a number of scores which seemed, at least in theory, to possess merit. In evaluating a score the prime consideration was reliability. Other criteria were validity, sensitivity, ease of interpretation and economy of time and effort on the part of both subject and marker. The principal questions to which answers were sought were the following:

a. What statistical measure is of most use,- the mean,

the median or some modification or combination of these?

b.   To what should the parameter chosen be applied,- endorsed items only, or both endorsed and rejected items?

c.   If rejected items can be effectively used, thus, in effect, doubling the length of the scale, what transmutation scheme is soundest and simplest?

d.   Is weighting of either indicators or responses, or both, worthwhile? If so, what is the optimum number of scale steps, and what scaling techniques are most satisfactory?

e.   Can the labor of scoring be reduced by mechanical keys or other devices?

The second trial forms of the conscription of wealth scale permitted five different responses to each statement: $\cancel{A}$, emphatic agreement; A, agreement; U, uncertainty; D, dis- agreement; and $\cancel{D}$, emphatic disagreement. Scaling of responses would thus superimpose a five-step weighting upon a nine-step scaling of indicators.

In order to evaluate different scores by the compar- ison of constituent factors, the following scores were computed separately:

A, the arithmetic mean of the scale values of all state- ments marked either A or $\cancel{A}$.

$\cancel{A}$, the same for statements marked $\cancel{A}$.

A$\cancel{A}$, same as A, except that items marked $\cancel{A}$ were given double weights.

D, 7 (See note below) minus the arithmetic mean of the scale values of the statements marked D or Ð.

Ð, same as D, but only applied to statements marked Ð.

DÐ, same as D, except that double weights were assigned to items marked Ð.

AD, the mean (weighted by the number of items marked in a given way) of A and D scores.

AÐ, the weighted mean of Á and Ð scores.

Σ, the weighted mean of A, D, Á and Ð scores, i.e. the weighted mean of AÁ and DÐ scores.

Est, estimate on graphic scale, page 2 of test.

CV_1, the arithmetic mean of the 4 or 5 (as the case may be) central values of the A and Á items left after crossing out extremes in pairs. Thus, if the A scale values were as follows: 7, 4, 5, 4, 0, 1, 6, 3, the 7 and 0 would be crossed out first, then 6 and 1; the mean of the four remaining values would then be $\frac{4 + 5 + 4 + 3}{4}$ = 4.

CV_2, the same as CV_1 but including D and Ð values and attaching double weights to Á and Ð responses)i.e. entering their scale values twice before beginning to cross out).

Note: The scale values shown in all previous tables and figures were, in order to avoid the need for keeping negative and positive numbers separate, changed as follows:

Old Value	-3.5	-2.5	-1.5	-0.5	0.5	1.5	2.5	3.5
New Value	0	1	2	3	4	5	6	7

Table V shows correlation coefficients, between forms A and B, based on several different scores applied to the second trial scale. The coefficients of correlation shown in columns 5 and 10 are product-moment coefficients obtained from 7 x 7 frequency tables. Each coefficient is accompanied by its standard error, $\sigma_p = \dfrac{1 - P^2}{\sqrt{N}}$. The standard errors might have been reduced by pooling the marks of the three groups for the computation of a given score. However, it seemed wise to keep the high school scores separate from the university scores. Group 3 was separated from group 1 because the scale had, when the former took it, been slightly revised in the light of criticisms and marking difficulties.

, TABLE V

COEFFICIENTS OF CORRELATION, ALTERNATE FORMS

1 Score	2 Number of Subjects	3 Group	4 High School or University	5 Coefficient of Correlation	6 Score	7 Number of Subjects	8 Group	9 High School or University	10 Coefficient of Correlation
A	55	1	Univ.	$0.71 \pm .07$	AD	43	3	Univ.	$0.79 \pm .06$
A	71	2	H. S.	$0.67 \pm .07$	M	70	2	H. S.	$0.63 \pm .07$
A	43	3	Univ.	$0.81 \pm .05$	M	40	3	Univ.	$0.82 \pm .05$
AA	54	1	Univ.	$0.67 \pm .07$	CV_1	56	1	Univ.	$0.67 \pm .07$
AA	71	2	H. S.	$0.67 \pm .07$	CV_1	71	2	H. S.	$0.71 \pm .06$
AA	40	3	Univ.	$0.84 \pm .05$	CV_1	44	3	Univ.	$0.74 \pm .07$
D	44	1	Univ.	$0.71 \pm .07$	CV_2	44	3	Univ.	$0.76 \pm .06$
D	40	3	Univ.	$0.72 \pm .08$					

Examination of these correlations led to the following very tentative conclusions:

1. The A and A$\not$ scores are slightly more reliable than any of the other scores tested. The A score has the advantages of being easier to compute and of simplifying the recording of attitude by the subject.

2. D scores, and scores which contain D or $\not$ values, being slightly less reliable, do not justify the extra labor involved in their computation.

3. The CV scores appear to lose sensitivity by the elimination of extreme markings.

4. The highest reliabilities are shown by Group 3, for whom several statements were modified before presentation, an effort being made not to disturb scale values.

It may be objected that these comparisons of scores are based on an imperfect trial scale. This is perhaps fortunate, inasmuch as imperfections, present to some extent in the best scales, are the more certain to affect the score. The ability of a score to show high reliability despite internal weaknesses of the scale is surely a criterion of excellence.

Validity

In order to obtain evidence of validity, each subject was asked to estimate his own attitude position on a graphic rating scale. Table VI shows a few validity coefficients. The high correlation between A$\not$ and CV_1 is, of course, to be

expected, since both scores are based on the same data, except that in computing CV_1 the most extreme scale values were excluded.

TABLE VI

CORRELATIONS BETWEEN DIFFERENT SCORES

A AND B FORMS COMBINED

Scores	Number of Papers	Group	Coefficient of Correlation
A𝒜 and Est.	79	3	0.79 ±
CV_1 and Est.	136	2	0.65 ±
A𝒜 and CV_1	115	1	0.965±

Key. - When it was still hoped that central values scores might prove advantageous, a page-fitting, cardboard key was devised. Opposite each statement is a sliding cardboard strip so arranged that when a given letter 𝒜, A, D or 𝒟 is just visible at the right, the corresponding scale value appears through a small opening at the left. Similar keys could be set up for any of the scores shown in Table IV. It might be feasible to attach a key to each scale and let the subject record his attitude by adjusting the cardboard strips to show the letters which he would otherwise encircle. Should this be done, it would seem advisable to show the scale values on the back of the key.

Revision, third trial scale

Despite the fairly high reliability of the second trial scale, as modified for group 3, scrutiny of the criticisms made, and of the statements themselves, enforced the conclusion that a thorough revision was necessary in the interests of greater logical precision. To give direction to the revision, the responses to each sentence were analysed for internal consistency. The answer sheets of group 3 were sorted into three piles (1) favorable (2) neutral or moderate (3) opposed, one-third of the papers being assigned to each pile. The percentage of acceptances by the high or favorable group, and the percentage of rejections by the low or unfavorable group, were compared with the scale value of each statement. In calculating these percentages the uncertain, U, responses were ignored. Table VII shows the results. It will be noticed that the following statements show marked inconsistency of response: A 4, 8, 19, B 3, 8, 17, 19, 20.

The following criteria, listed by Wang[17], were used in the revision. Each statement should

1. be debatable

2. belong to the same attitude variable

3. be susceptible to only one interpretation

4. not be double-barreled.

5. be short - rarely exceeding fifteen words

6. show a complete, definite attitude to a specific issue

17. Nelson, E., Attitudes, J. Gen. Psych., Oct. 1939, 21 (2nd half), 367 - 437.

TABLE VII

INTERNAL CONSISTENCY OF RESPONSES
TO
SECOND TRIAL SCALE, CONSCRIPTION OF WEALTH

1	2	3	4	5	6	7	8
	Form A				Form B		
Statement No.	Percentage of Endorsations High Group	Percentage of Rejections Low Group	Scale Value (0-7)	Statement No.	Percentage of Endorsations High Group	Percentage of Rejections Low Group	Scale Value (0-7)
1	0%	0%	1	1	20%	0%	1
2	81	90	6	2	100	100	6
3	87	100	4	3	100	0	4
4	0	71	0	4	14	52	0
5		16	2	5	8	50	2
6	100	83	5	6	87.5	60	5
7	100	84	7	7	67	100	7
8	84	8.5	3	8	50	0	3
9	0	0	1	9	0	11	1
10	83	75	5	10	84	75	5
11	100	40	5	11	100	57	7
12	100	67	7	12	43	0	2
13	22	8	2	13	25	17	5
14	0	20	0	14	0	0	0
15	67	100	6	15	60	92	6
16	20	25	3	16	84	60	3
17	82	100	7	17	27	100	7
18	8	11	1	18	0	0	1
19	84	0	4	19	100	38	4
20	0	9	0	20	92	44	0
21	57	100	6	21	100	91	6
22	7	30	2	22	0	0	2

7. have only one thought

8. contain no grouping of sentences

9. be clear-cut and direct

10. seldom use <u>only</u>, <u>merely</u>, <u>just</u>.

11. avoid colorless expressions lacking in affect.

12. prefer simple sentences to complex sentences

13. prefer complex to compound sentences

14. use active rather than passive voice

15. use the term at issue as subject of the
    sentence even if it is necessary to make the
    sentence passive

16. avoid high-sounding or uncommon expressions.

All statements yielding markedly inconsistent responses, all statements clearly violating several of Wang's precepts, and all statements conspicuously lacking in positive substance were remodelled or replaced by new statements. In the process, the original scale values were, of course, lost. The indicators might have been submitted once more to sorters or scalers; instead it was decided either to leave them unscaled or to scale them from the responses. For a copy of the third trial scale see Appendix III. It will be seen that in order to satisfy Wang's sixth requirement it was frequently necessary to violate his fifth criterion. Neutral statements were avoided.

Two hundred copies of the third trial scale were mimeographed and administered to high school students, University Summer Session students, and adults on a mailing list obtained from the University Department of Extension.

Consistency of response

To estimate consistency of response, the procedure was as follows. All the answer papers were given an unweighted score, a pro mark being given for every acceptance of a pro statement and for every rejection of a con statement, and a con mark for every acceptance of a con statement and for every rejection of a pro statement. Statements marked, U, were ignored. The combined excess of pro marks over con marks on both forms of the scale was taken as the subject's score, a con score being designated by a minus sign. The papers were then rank-ordered. Forty extreme pro papers were selected, but it was possible to get only twenty equally extreme con papers. It was expected that the pro group would endorse pro statements and reject con statements, and that the con group would mark statements in the opposite fashion. Statements which unmistakably violated this set of conditions were eliminated. A few statements were on or near the border line, i.e. the number of consistent markings was equal to, or close to, the number of inconsistent markings. In such cases, ten of the most extreme papers left were drawn.

Table VIII shows an analysis of the consistency of responses and scale values based on the percentage of responses by pro and con groups.

TABLE VIII

CONSISTENCY OF RESPONSES TO THIRD TRIAL SCALE, CONSCRIPTION OF WEALTH

1	2	3	4	5	6	7
			Form A			
Statement No.	Pro or Con	Percentage Acceptances by Pro Group	Percentage Rejections by Con Group	Consistency Satisfactory(S) or Unsatisfactory (U)	Scale Pro (1-50)	Value Con (1-50)
1	C	22%	33%	S		22.5
2	P	70	95	S	32.5	
3	P	61	53	S	7	
4	C	29	5	S		33
5	C	35	31	S		17
6	P	98	33	U	----	
7	P	93	21	U	----	
8	P	80	63	S	21.5	
9	C	42	0	S		29
10	P	95	32	U	----	
11	P	95	95	S	45	
12	C	5	0	S		47.5
13	C	18	45	S		18.5
14	P	74	90	S	32	
15	P	89	43	U	----	
16	C	13	15	S		36
17	P	82	64	S	23	
18	C	37	10	S		26.5
19	C	24	5	S		35.5
20	P	95	85	S	40	
21	C	41	0	S		29.5
22	C	12	11	S		38.5

TABLE VIII - Cont'd

CONSISTENCY OF RESPONSES TO THIRD TRIAL SCALE,

CONSCRIPTION OF WEALTH

1	2	3	4	5	6	7
			Form B			
Statement No.	Pro or Con	Percentage Acceptances by Pro Group	Percentage Rejections by Con Group	Consistency Satisfactory(S) or Unsatisfactory (U)	Scale Value Pro (1-50)	Con (1-50)
1	C	12	14	S		37
2	P	95	59	S	27	
3	P	87.5	84	S	36	
4	C	10	16	S		37
5	C	29	15	S		28
6	P	64	63	S	13.5	
7	P	71	82	S	26.5	
8	P	93	27	U	----	
9	C	19	44	S		18.5
10	P	98	50	S ?	24	
11	P	85	100	S	42.5	
12	C	31	0	S		34.5
13	C	14	10	S		38
14	P	100	31	U	----	
15	P	87.5	63	S	25	
16	C	30	28	S		21
17	P	90	74	S	32	
18	C	3	56	U	----	
19	C	42	5	S		26.5
20	P	80	57	S	18.5	
21	C	26	21	S		26.5
22	C	20	0	S		40

To obtain the scale values shown in columns 6 and 7, the entries in columns 3 and 4 were averaged for each statement. If this average exceeded 50 the difference was entered in column 6 as a pro score. Thus, for the fourteenth statement, Form A, $\frac{74 + 90}{2}$ = 82. Therefore the score is pro (82-50) = pro 32. When the average was less than 50, the difference was entered as a con score.   .

Fourth conscription of wealth scale

  From the statements marked 3, in column 5, Table VIII, two new forms of eighteen statements each, were constructed. The forms were equated as closely as possible on scale values. Table IX shows the composition of the new forms. As only sixteen statements withstood the tests of consistency, it was necessary to include ten con statements in each 18-item form. This excess of con statements, being the same for both forms, should constitute no weakness.

TABLE IX

SCALE VALUES OF FOURTH FORMS
CONSCRIPTION OF WEALTH SCALE

1	2	3	4	5	6	7	8
	F o r m A				F o r m B		
Statement No.	No. on Third Trial Scale	Scale Value Pro (1-50)	Value Con (1-50)	Statement No.	No. on Third Trial Scale	Scale Pro (1-50)	Value Con (1-50)
1	A 16		36	1	B 1		37
2	A 2	32.5		2	B 2	27	
3	A 7	7		3	B 6	13.5	
4	B 16		21	4	A 1		22.5
5	A 4		33	5	B 12		34.5
6	A 5		17	6	B 9		18.5
7	A 11	45		7	B 11	42.5	
8	A 8	21.5		8	B 20	18.5	
9	A 18		26.5	9	B 21		26.5
10	A 17	23		10	B 10	24	
11	B 19		26.5	11	A 9		29
12	A 12		47.5	12	B 22		40
13	A 14	32		13	B 17	32	
14	B 7	26.5		14	B 15	25	
15	A 19		35.5	15	B 4		37
16	A 21		29.5	16	B 5		28
17	B 3	36		17	A 20	40	
18	B 13		38	18	A 22		38.5

  Before finally assigning statements to either form, the central idea of each statement was listed. Interchanges

between forms were then made with a view to equating the forms,
at least roughly, on the range and type of issues mentioned.
That is to say, there was an effort to make the sampling of
object factors on one form comparable with that on the other.

Figure 4 gives a graphic comparison of scale positions
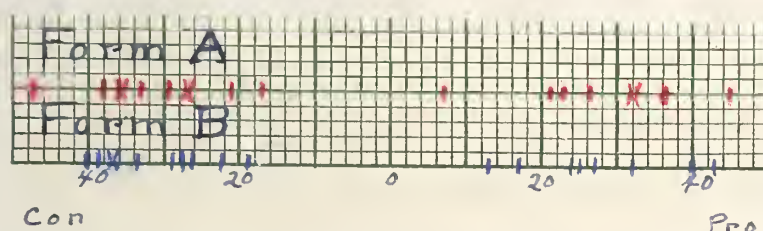on the two forms.

Figure 4.- Scale Values on Fourth Forms,
Conscription of Wealth Scale.

In Table X will be found reliability coefficients for
the Third Trial Scale and for the Fourth Scale. These are
product-moment coefficients based on 10 x 10 correlation tables
and upon unweighted responses to unscaled statements.

TABLE X

CORRELATION COEFFICIENTS BETWEEN ALTERNATE FORMS

THIRD AND FOURTH SCALES, CONSCRIPTION OF WEALTH

Scale	Number of Subjects	Nature of Group	Correlation Coefficient ± Standard Error
3rd Trial	50	Adults	0.944 ± 0.016
3rd Trial	86	Adults and H.S. Pupils	0.862 ± 0.028
New (4th)	88	Adults and H.S. Pupils	0.863 ± 0.027

High school discipline scale

The method of preparing the high school discipline scale was very similar to that employed in constructing the last two (third and fourth) conscription of wealth scales. The original list of 113 statements was used only to suggest ideas. The whole scale was criticized and revised by two educationists of wide experience. An effort was made to scale the indicators by having three or four educationists place each statement on a 7-step scale. This effort proved abortive, very wide discrepancies between the judgments of the experts being the rule rather than the exception. From this point on, the procedure was the same as for the last two conscription of wealth scales.

Corresponding to tables VIII, IX, X and Figure 4, which apply to the conscription of wealth scales, are tables XI, XII, XII and figure 5 respectively, which apply to the high school discipline scales.

TABLE XI

CONSISTENCY OF RESPONSES TO THE FIRST SCALE

ON STRICT HIGH SCHOOL DISCIPLINE[X]

1	2	3	4	5	6	7
			Form A			
Statement No.	Pro or Con	Percentage Acceptances by Pro Group	Percentage Rejections by Con Group	Consistency Satisfactory(S) Unsatisfactory (U)	Scale Value Pro (1-50)	Con (1-50)
1	P	80	88.5	S	34	
2	C	5	59	U		- - - -
3	P	62	78	S	20	
4	P	89	50	S ?	20	
5	C	62	0	U		- - - -
6	C	81	0	U		- - - -
7	C	36	43	S		10.5
8	C	12.5	41	S		18
9	P	79	62	S	20.5	
10	P	92	44	U	- - - -	
11	C	21	8	S		35.5
12	P	68.5	64	S	16	
13	P	75	44	U	- - - -	
14	P	92	46	U	- - - -	
15	C	4	38	S		29
16	C	55	28	U		- - - -
17	P	97	4	U	- - - -	
18	C	71	4	U		- - - -
19	C	0	43	S		28.5
20	P	86	50	S ?	18	
21	P	96	58	S	28	
22	P	100	63	S	31.5	
23	C	92	95	S	43.5	
24	C	48	0	S		26
25	C	33	44	S		11.5
26	C	47.5	26	S		13
27	P	39	92	U	- - - -	
28	C	40	10	S		25
29	C	17	44	S		19.5

[X] Appendix IV.

TABLE XI Cont'd

CONSISTENCY OF RESPONSES TO THE FIRST SCALE

ON STRICT HIGH SCHOOL DISCIPLINE[X]

1	2	3	4	5	6	7
		F o r m B				
Statement No.	Pro or Con	Percentage Acceptances by Pro Group	Percentage Rejections by Con Group	Consistency Satisfactory(S) Unsatisfactory (U)	Scale Value Pro (1-50)	Con (1-50)
1	P	100%	35%	U	-----	
2	C	17	23	S		30
3	P	95	30	U	-----	
4	P	68	68	S	18	
5	C	72	7	U		-----
6	P	95	63	S	29	
7	C	6	50	S ?		22
8	C	55	0	U		-----
9	P	84	83	S	33.5	
10	P	78	39	U		-----
11	C	34	4	S		31
12	P	100	58	S	29	
13	P	71	73	S	22	
14	P	78	95	S	36.5	
15	C	28	21	S		25.5
16	C	72	16	U		-----
17	P	91	61.5	S	26	
18	C	19	21	S		30
19	C	12.5	13.5	S		37
20	P	77	62	S	19.5	
21	P	100	95.5	S	48	
22	P	67	84	S	25.5	
23	P	62	86	S	24	
24	C	5	27	S		34
25	C	71	0	U		-----
26	C	52	5	U		-----
27	P	57	100	S	27.5	
28	C	43	27	S		15
29	C	80	4	U		-----

[X] Appendix IV.

TABLE XII

SCALE VALUES OF SECOND FORMS,

HIGH SCHOOL DISCIPLINE SCALE

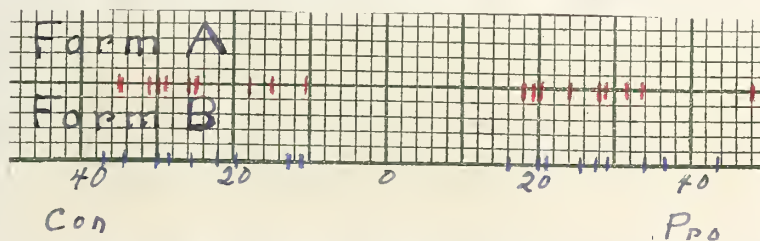| 1	2	3	4	5	6	7	8
	F o r m A				F o r m B		
Statement No.	No. on First Scale	Scale Value Pro (1-50)	Con (1-50)	Statement No.	No. on First Scale	Scale Value Pro (1-50)	Con (1-50)
1	B 9	33.5		1	A 1	34	
2	A 3	20		2	A 9	20.5	
3	A 7		10.5	3	A 25		11.5
4	B 4	18		4	A 12	16	
5	A 8		18	5	A 29		. 19.5
6	A 11		35	6	B 19		37
7	A 15		29	7	A 19		28.5
8	B 21	48		8	A 23	43.5	
9	A 22	31.5		9	B 14	36.5	
10	B 2		30	10	B 18		30
11	A 21	28		11	B 27	27.5	
12	B 6	29		12	B 12	29	
13	B 23	24		13	B 22	25.5	
14	A 24		26	14	B 15		25.5
15	A 28		25	15	B 7		22
16	B 20	19.5		16	A 4	20	
17	B 28		15	17	A 26		13
18	B 11		31	18	B 24		34

Figure 5.- Scale Positions on Second
High School Discipline Scale.

TABLE XIII

CORRELATION COEFFICIENTS BETWEEN ALTERNATE

FORMS, HIGH SCHOOL DISCIPLINE SCALES

Scale	Number of Subjects	Nature of Group	Correlation Coefficient + Standard - Error
First Trial	130	H.S.pupils,Teachers	0.81 ± 0.03
Second	54	H.S.pupils,Teachers	0.845 ± 0.037

If A and B forms of the last high school discipline scale were administered together, the reliability would, by the Spearman-Brown formula ($r_{AB} = \dfrac{nr}{1+(n-1)r}$), be 0.916. The reliability of the combined conscription of wealth forms (last scale produced) would, by the same formula, be 0.926.

Here are the final scales.

CONSCRIPTION OF WEALTH   FORM A

Name _____ Male or Female
                                        (Stroke out the wrong word)

    (School_____ Age_____ Grade_____
    (
If at school(Parent's Occupation _____
    (
    (Occupation you plan to follow_____

If not at school(Occupation _____

This is a study of attitudes towards conscription of wealth as a national policy. It is not an examination. Different people are expected to different opinions.

Conscription of wealth, as here used, means that the government will, by increased taxes or direct levies or both, take from those citizens who possess considerably more than

average wealth whatever portion of their wealth the government needs to promote the welfare of all its people. It does not mean that the government will take over the ownership of land or industries. The statements refer to peace-time conditions.

After each statement you will find the letters A (meaning Agree), U (Uncertain), and D (Disagree). It is probable that few, if any, statements will perfectly express your attitude. If you agree more than you disagree with a given statement, circle the A, thus Ⓐ. If you disagree more than you agree, circle the D. If you are uncertain, circle the U. Please mark every statement.

1.   I oppose conscription of wealth on the ground that it would drive out of the country our most enterprising industrialists and manufacturers.   A U D

2.   One of the crying evils of our time - inequality of income - should be attacked by state confiscation and redistribution of excessive wealth.   A U D

3.   Inheritance tax rates should increase rapidly with the size of the estate, rising to 100 per cent for all inherited wealth in excess of, say, $25,000.   A U D

4.   The present incidence of taxation upon rich and poor is essentially reasonable and fair.   A U D

5.   Any general conscription of wealth during peace time would violate the democratic principle of individual liberty   A U D

6.   The soundest general policy is to keep government taxation of private wealth at a minimum   A U D

7.   Any governmental system which permits the piling up of great private fortunes is wrong.   A U D

8.   The national debt should gradually be
        reduced and paid off with money obtained
        from the conscription of wealth   A U D

9.   The motives of men are such that they will
        not work with enthusiasm or eagerness except
        for private gain   A U D

10.   I favor the principle of production for use
        only, rather than that of production for
        profit.   A U D

11.   Having met all his ordinary financial obli-
        gations, a citizen should have the right to
        dispose of his honestly acquired wealth as
        he pleases   A U D

12.   The principles upon which true democracy rests
        are contrary to a policy of conscripting
        wealth.   A U D

13.   Any clear profit or income to a private citi-
        zen in excess of $15,000 per year should be
        taken by the state and spent for public
        welfare.   A U D

14.   It is highly improbable that a just social
        order will be established without general
        conscription of wealth.   A U D

15.   Conscription of wealth is a bad policy since
        it would discourage the investment of money
        in our country.   A U D

16.   When all is said and done, the disadvantages
        of heavily conscripting wealth probably out-
        weigh the advantages, except perhaps in times
        of national emergency.   A U D

17.   Provided that conscription of wealth does not
        touch those who are making only a moderate
        living, I am in favor of it.   A U D

18.   Conscription of wealth would undermine the
        ambition, initiative and driving force
        necessary for success in any line of work.   A U D

CONSCRIPTION OF WEALTH   FORM B

Name_____Male or Female
                                  (Stroke out wrong word).

          (School_____Age_____ Grade_____
          (
If at school(Parent's Occupation _____
          (
          (Occupation you plan to follow_____

If not at school (Occupation_____

          This is a study of attitudes towards conscription of
wealth as a national policy. It is <u>not</u> an examination. Different
people are expected to have different opinions.

          Conscription of wealth, as used here, means that the
government will, by increased taxes or direct levies or both,
take from those citizens who possess considerably more than
average wealth whatever portion of their wealth the government
needs to promote the welfare of its people. It does <u>not</u> mean
that the government will take over the ownership of land or
industries. The statements refer to <u>peace-time</u> conditions.

          After each statement you will find the letters A
(meaning Agree), U (Uncertain) and D (Disagree). It is probable
that few, if any, statements will perfectly express your atti-
tude. If you <u>agree</u> more than you disagree with a given state-
ment circle the A, thus Ⓐ. If you disagree more than you agree,
circle the D. If you are <u>uncertain</u>, circle the U. Please mark
every statement.

1.   Conscription of wealth as a national policy
          would threaten the foundations of economic life.   A U D

2.   I believe that governments should heavily con-
          script wealth within a country before they borrow
          at high interest rates.   A U D

3.   Taxes on inherited wealth should be greatly
increased.   A U D

4.   A state policy of conscripting wealth would
almost certainly discourage individual effort
and initiative.   A U D

5.   There is grave danger that a policy of con-
scripting wealth would, once put into operation,
lead to harmful extremes.   A U D

6.   Wide inequalities of wealth in a state are both
natural and desirable.   A U D

7.   Citizens should not be allowed to retain more
wealth than a fairly high standard of living
requires.   A U D

8.   Inheritance taxes should increase with the size
of the estate rising to 100 per cent for all
inherited wealth in excess of say, $30,000.   A U D

9.   I believe that it is good policy to encourage
the making of private profits by keeping govern-
ment restriction and interference at a minimum. A U D

10.   Unearned income, that is income from stocks,
bonds, mortgages, and the like, should be heavily
taxed.   A U D

11.   Anyone who has gained his wealth legally has a
perfect right to keep it and use it as he sees fit. A U D

12.   Conscription of wealth would violate or endanger
some of the principles of democracy.   A U D

13.   It is the duty of a democratic government to
ensure as far as possible the equitable distribu-
tion of the total income gained by its citizens. A U D

14.   Wealth should be conscripted whenever, and to the
extent that, public welfare demands it.   A U D

15.   Governments have no right to confiscate private
wealth unless it has been dishonestly acquired. A U D

16.   It is unfair to make large direct levies on
wealth in peace time.   A U D

17.   Since the wealth of a state belongs to all the
citizens of the state, large fortunes should not
be permitted to accumulate in private hands. A U D

18.   A government which has power to confiscate wealth
is likely to spend money extravagantly and foolishly. A U D

HIGH SCHOOL DISCIPLINE   FORM A

Name _____ Male or Female
                                        (Stroke out wrong word)

          (School_____ Age_____ Grade_____
          (
If at school(Parent's Occupation_____
          (
          (Occupation you plan to follow _____

If not at school (Occupation_____

          This is a study of attitudes towards high school
discipline. It is not an examination. Different people are
expected to have different opinions.

          Discipline, as here used, will mean insistence by the
teacher upon the careful observance of rules, with punishment
of some form for tohse who break the rules.

          Freedom, will, in general, mean freedom from discipline
as defined above.

          After each statement you will find the letters A (mean-
ing Agree), U (Uncertain) and D (Disagree). It is probable that
few, if any, of the statements will perfectly express your
attitude. If you agree more than you disagree with a given
statement please circle the A, thus Ⓐ. If you disagree more
than you agree, circle the D. If you are uncertain, circle
the U. Please mark every statement.

1.   Freedom from discipline often breeds an
          objectionable attitude of self-importance.   A U D

2.   I think strong discipline is necessary to
          form strong characters.   A U D

3.   A student should be permitted to waste his own
          time of he wishes, provided he does not waste
          that of others.   A U D

4. Once rules are made, no exceptions to their enforcement should be permitted. A U D

5. I prefer teachers whose discipline is very mild and tolerant. A U D

6. Strict discipline tends to make pupils nervously tense and irritable. A U D

7. Strong discipline in school tends to destroy the pupil's self-respect. A U D

8. Strict discipline produces the most efficient students. A U D

9. The relatively immature judgment of many high school students makes a very free system unwise. A U D

10. Within wide limits a class should be permitted to set its own standard of discipline. A U D

11. Much valuable time is likely to be wasted in the classroom if discipline is not strong. A U D

12. A good deal of social maladjustment among adults could have been prevented by more thorough discipline at the high school age. A U D

13. Firm discipline is needed to teach cooperation. A U D

14. Corporal punishment to high school students will almost invariably do more harm than good. A U D

15. Wide freedom favors the growth of a pleasing personality. A U D

16. If punishment is severe it will not often be required. A U D

17. High school pupils should not be required to observe rules for which the majority do not see a definite need. A U D

18. Rigid discipline tends to dispel the happy atmosphere which should prevail in a classroom. A U D

HIGH SCHOOL DISCIPLINE   FORM B

Name_____ Male or Female
                                          (Stroke out the wrong word)

If at school(School _____Age_____Grade _____
             (
             (Occupation you plan to follow_____

If not at school (Occupation_____

       This is a study of attitudes towards high school discipline. It is _not_ an examination. Different people are expected to have different opinions.

       Discipline, as here used, will mean insistence by the teacher upon the careful observance of rules, with punishment of some form for those who break the rules.

       Freedom will, in general, mean freedom from discipline as defined above.

       After each statement you will find the letters A (meaning Agree), U (Uncertain) and D (Disagree). It is probable that few, if any, of the statements will perfectly express your attitude. If you _agree_ more than you _disagree_ with a given statement please circle the A, thus Ⓐ. If you _disagree_ more than you agree, circle the D. If you are _uncertain_, circle the U. Please mark every statement.

1.   I believe that teachers should consistently
         maintain very strict discipline in the classroom. A U D

2.   Order and progress in school should never be
         sacrificed to the ideal of freedom.   A U D

3.   Wide freedom is favorable to a spirit of
         cooperation.   A U D

4.   Teachers should, with or without the students'
         interest, insist upon many things being done
         which seem to them important.   A U D

5.   Free self-expression seems to me more important than progress in school.   A U D

6.   The growth of personal responsibility is promoted by freedom to do as one chooses.   A U D

7.   Strict discipline discourages the growth of strong character.   A U D

8.   Strict discipline is necessary to instil respect for the rights and needs of others.   A U D

9.   Strict discipline at the high school age is a vital necessity.   A U D

10.   Strict discipline fosters an undesirable habit of blind obedience.   A U D

11.   The development of pleasing personalities is fostered by strict discipline.   A U D

12.   It is generally true that disorder and confusion result from the relaxation of disciplinary control.   A U D.

13.   Conspicuous discipline assists teachers to gain and retain the respect of their classes.   A U D.

14.   Rigid discipline in school tends to undermine the student's self-confidence.   A U D

15.   Students should in large measure be allowed to do their work when they please.   A U D

16.   Those who have first learned to obey usually make the best leaders.   A U D

17.   Since every youth differs from every other youth very few rules can apply to all.   A U D

18.   Strict discipline tends to produce socially maladjusted persons.   A U D

CHAPTER V

DIFFICULTIES, CONCLUSIONS AND PROBLEMS RAISED

Statements

The first and most fundamental difficulty was that of obtaining good attitude indicators. The first method tried, that of giving a group of persons a short time in which to write down several statements proved far from satisfactory. This method, undertaken with the dual aim of sampling a wide range of attitude factors and of preventing the introduction into the scale of the investigator's own attitudes, led to great waste of time and effort. Almost every statement contained a plurality of ideas; this weakness apparently arose from an attempt to write scalable statements each embodying a complete and definite attitude. Even after coming creditably through the mill of Thurstone's supposedly objective elimination techniques, the statements were found to abound with such defects as 1. stereotyped words and phrases

2. ambiguity of denotation

3. vagueness of denotation

4. qualifying words, phrases and clauses which might conflict with the rest of the statement

5. sweeping statements to which responsible persons could not be expected to subscribe

6. confusion as to the attitude object

7. frequent use of such words as <u>only</u>, <u>merely</u>, <u>just</u>, <u>never</u> and <u>all</u>, which give rejection an equivocal significance.

Despite the unwieldy number of statements collected, a survey (with rough factor analysis) of the attitude object revealed that only fragments of the object were covered and that these fragments were disproportionately represented.

The conclusion seems inescapable that not only those who contribute statements, but also those who select and edit them, should have special knowledge of the field of learning to which the attitude object pertains. It seems almost certain, too, that allowing contributors ample time to prepare their statements carefully, and providing them with definite criteria for criticism and revision, would result in vastly better statements. The author is, however, convinced that, since it is the scale framer who analyses the various data for evaluation of each statement and who is responsible for producing useful scales which will function with high reliability; the latter should feel free to inject subjective factors into the scale in the selection, revision and supplementation of the original indicators. Further, in order that denotation may be as precise as possible, it is felt that definitions should be provided for all terms embodying concepts which are focal in the scale as a whole; that the application of the scale in time, place and circumstance should be specified; and that expressions which might be misconstrued be systematically replaced by expressions, longer if necessary, whose denotation is less elastic. An effort might be made so to word statements as to discover how far the subject is willing to go, what he is

willing to do to give expression to his attitude. It is,
however, suggested that, to avoid difficulties in interpret-
ing test results, this effort be not made unless the idea
can be consistently applied throughout the scale. Wang's
fifteen word limit should probably be altered to suit different
attitude objects. In fine, it is recommended that there be,
first, capitalization of any subjective resources of special
knowledge or insight possessed by the scale framer and assist-
ing experts; second, the maximum stabilization of secondary
variables; and, third, a definite rational emphasis as opposed
to Thurstone's affective emphasis.

Scaling

A number of problems, both practical and theoretical
arose from the attempt to give each scale a rational, constant
unit which would justify the plotting of frequency distributions.

On the practical side, sorting, even as simplified,
was found most laborious and was reported by many sorters to
be very difficult. Analysis of the data from sorting and com-
putation of the desired parameters demanded an inordinate amount
of time and patience. Notwithstanding the large number of
statements, their scale distribution was irregular with a
striking paucity of neutral and near-neutral items of satis-
factorily low Q-value.

To mitigate these difficulties, the following measures
should prove of value: reducing the number of sorters to a
fairly small multiple of four, say twenty-eight, thoroughly
revising the statements before submission to the scalers or

sorters, endeavoring to obtain a bisymmetrical rather than a uniform distribution of scale values, and, finally, dispensing entirely with neutral and near-neutral statements (rejection of which may always be interpreted in two opposite ways). It would, however, appear far simpler to abandon the sorting procedure _in toto_ and to scale responses rather than indicators. If it be still deemed advantageous to scale the indicators, this may be done from actual responses. While a four-step scaling of indicators is suggested, those who desire greater refinement have but to begin with a larger number of statements.

From the theoretical viewpoint, it has been observed that sorting is assailable on a number of counts. The end effect and the apparent impossibility of defining or locating _true_ neutrality, with the consequent likelihood of disparity between the two _halves_ of the scale, combine to render the rationality of the scale highly suppositional.

To meet these objections, elimination of the whole sorting procedure is again suggested. There can scarcely be any question of the rationality of a two-point, pro-con scaling of indicators, necessary before the responses can have any attitudinal meaning in terms of the attitude object. Data from sorting showed that, except for statements falling in the central part of the scale, judges were virtually unanimous in classifying indicators as either pro or con. Furthermore, the internal consistency technique weeds out all statements which fail to elicit responses consistent with their pro-con designations.

It must be explicitly stated that the so-called scale values of tables VIII, IX, XI and XII and figures IV and V are not based on a rational, constant unit. As a device for roughly equating alternate forms they are useful, but they are really average relative frequencies, referred to 0.5, or 50 per cent, as origin. Now, if the normal curve of probability formed the two sides of an isosceles triangle, the probability of a subject's endorsing a given statement would then be exactly proportional to the true scale distance separating the subject's attitude position from that of the statement. Moreover, since the normal curve has two stretches, some distance alike from the two ends and from the centre, which rather closely approximate straight lines, and since most of the scale values on the last two scales produced (See tables IV and V) fall in this range, the errors should not be very great. However, these scale values may be rationalized by plotting a normal curve taking, say, twenty-five base units as two standard deviations, locating the assigned scale values on this curve and interpolating on the base line.
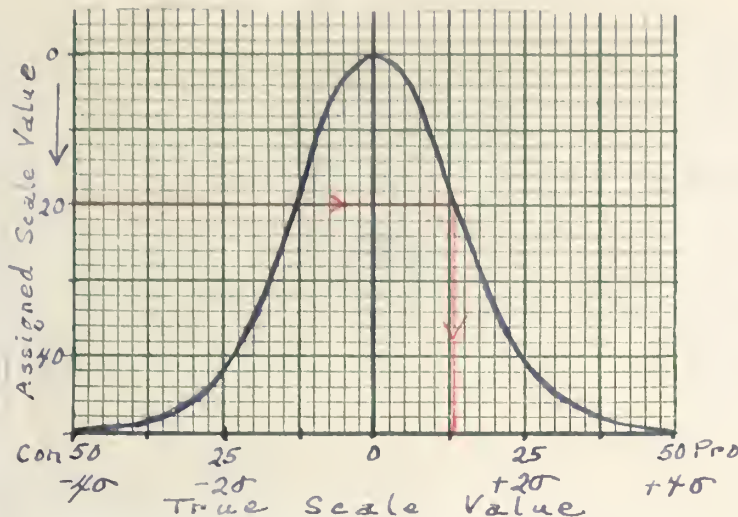
Figure 6.- Normal Curve for Scaling by Graphic Interpolation

To illustrate the use of Figure 6, let us take the Statement 16, Form B, Second High School Discipline Scale. Table XII shows its scale value as Pro 20. By interpolation on Figure 6 the true scale value is found to be Pro 13. For more accurate work a larger normal curve should be drawn. The base line could, of course, be divided into any number of scale steps desired. Experimental evidence is needed as to the optimum number of scale steps.

The same true scale values could also be obtained from tables VIII and XI by taking, for each statement, half the sum of entries in columns 3 and 4. These values could then be plotted as ordinates on a cumulative normal curve and the corresponding rational scale values found by interpolation on the base line (x-axis) scaled as in Figure 6.

The degree of correspondence, between percentage of endorsations by the extreme pro (or con) group and the percentage of rejections by the opposite group, which should be

considered satisfactory is not known. Should it be found, when both pro and con groups are much larger, that there are consistently large discrepancies between these percentages, some logical psychological difference between acceptance and rejection would seem to be indicated. In such case, separate scales might be prepared for accepted items and for rejected items.

Two interesting possibilities, the practicability or soundness of which it would be hazardous to judge, were suggested by the sorting procedure. First, attitudes might be measured directly from the results of sorting or scaling. If every statement could be limited to one secondary variable, the scale placement of the statement would almost certainly depend upon the sorter's attitudinal reaction to that secondary variable. This would be more certain if subjects were unaware of the real purpose of the sorting and if they were instructed to be guided solely by their own feelings. For instance, an extreme conservative, a moderate socialist, and a communist could be expected to scale the statement, <u>Conscription of wealth would probably pave the way for communism</u>, very differently. A battery of scales might be grouped, ostensibly about a few primary variables, while, at the same time, each secondary variable or object would be represented by a suitable number of statements.

The second possibility is that of preventing discrepancies between assigned scale values and actual pro-con scale

meanings to a given subject by scoring each subject's answer paper by scale values which that subject has himself assigned to the indicators. The two presentations could be so spaced that, when making endorsations and rejections, the subject would have the advantage of general familiarity with the scale without recalling particular scale values.

Scoring

The principal scoring difficulties have been discussed under scaling. They have centred about the questions of (1) whether to scale or not, (2) what to scale - indicators and/or responses, accepted items and /or rejected items, (3) how many scale steps to use, (4) how to scale.

The average reliability of 0.854 (Tables X and XII) obtained by unweighted scoring of the two _final_ scales resulting from this investigation, suggests that question (1) be answered, very tentatively, in the negative. This conclusion is supported by the fact that the highest average reliability which Likert[12] obtained for the Thurstone scales was 0.85, this coefficient resulting from the use of unscaled indicators.

The rationality of the weighting of responses for degree of conviction does not appear to have been established. The author takes the view that the most nearly rational scores yet devised mask such a multiplicity of uncontrolled variables

12. Likert, Roslow and Murphy, A Simple and Reliable Method of Scoring the Thurstone Attitude Scales, J. Soc. Psych., 1934, 5, 298-312.

that no score which yields a high reliability coefficient
should be discredited merely because its rationale has not been
fully demonstrated.

Evaluating scales

Any final evaluation of the scales produced must await
decisions on the many unsolved problems with which this chapter
bristles. How closely the scales accord with the true nature
of attitudes is unknown. There is no objective assurance of
representative sampling of the object factors. The checks on
both validity and sensitivity are largely subjective and a
priori. Indeed, subjective elements were admittedly and purpose-
ly injected into the trial scales; it seems reasonably certain,
however, that no gross ambiguity or irrelevancy could escape
elimination by the consistency of response technique. Alternate
forms of the conscription of wealth scale are imperfectly
equated on average number of words per statement; for form A
this is 16.9 words, while for form B it is 18.9 words (the
corresponding high school discipline figures are better, 12.9
words and 12.8 words respectively). Many statements, especially
in the conscription of wealth scale, exceed fifteen words. The
diction is, perhaps, too difficult for many high school students.
The definitions provided will probably need revising, and many
other terms may require definition. Despite all these difficult-
ies, the high reliability coefficients are evidence that the
scales are good. The possibility of further improving them
by the use of a better score, or in other ways, needs investigation.

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APPENDIX

RECORD BLANK

st strong- opposed	-3	-2	-1	Neutral 0	1	2	3	Most strong- ly in favor 4
-4								

DIRECTIONS

As a first step in making a scale to test opinions relating to the conscription of wealth, the 87 attached statements have been collected.

Will you please observe the following instructions:

1. Finish reading the instructions before looking at the statements.

2. Read at least twenty statements before beginning to classify them.

3. Using the tabulation form put the number of each statement in one of the nine columns. The numbers of those statements which you believe express the strongest approval of the conscription of wealth should be put under the heading "4". Statements which seem most strongly against conscription of wealth will have their numbers assigned to the column headed "-4". The numbers of neutral statements should be put under the heading "0". The number of each of the other statements will go to one of the six remaining columns according to the degree of favor or disfavor shown towards the conscription of wealth.

4. It is not necessary to get the same frequency of numbers in each column.

--ooOoo--

CONSCRIPTION OF WEALTH

. Conscription of wealth is justified only if and when the government can prove that the needs of the population as a whole are more completely satisfied.

. Conscription of wealth, even in war time, is anti-democratic and therefore wrong.

. Limited conscription applied to the very wealthy is right if the government needs the money for necessary public services.

. People who have succeeded financially are more competent than the government is to spend money for the public welfare.

. Wholesale conscription of wealth is completely impracticable.

. In case of war or other serious crisis conscription of wealth should be practised on a large scale.

. Since a citizen's first duty is to his country, he should not object to whatever conscription of wealth the occasion demands.

. No one should be allowed to keep more wealth than he needs to maintain a reasonable standard of living.

. Everything should belong to the government to be divided equally among all.

. Each should pay according to his wealth and receive according to his needs.

. Conscription of wealth is unfair in principle, but is excusable in times of national emergency.

. Income tax rates should be raised to at least 90 per cent for all income in excess of $50,000 per year.

. The present income taxes are too high.

. Most governments are composed of selfish blunderers who only squander the honest earnings of others.

. Governments should conscript most of the wealth within a country before they borrow at high interest rates.

. Voluntary contributions of wealth should be expected from the wealthy in time of crisis but no direct conscription is justifiable.

7. Income taxes might be increased a little in the higher income brackets.

8. Income taxes should be increased but only in time of war.

9. Increased taxes on wealth would certainly be unfair in peacetime.

0. At the first signs of a depression the government should conscript and distribute sufficient wealth to restore and maintain normal conditions.

1. Conscription of wealth is a necessary measure in time of prolonged war.

2. Conscription of wealth to help the needy encourages laziness.

3. People don't deserve what they can't earn.

4. A certain amount of conscription of wealth in peactime would promote social welfare by decreasing class distinctions.

5. Those who have more should pay more for their protection in time of war or of threatened war.

6. Conscription of wealth should certainly precede conscription of manpower.

7. As much conscription of wealth as is possible by democratic measures should be carried out for the benefit of the general public.

8. If the national debt is heavy it should be gradually reduced by conscription of wealth.

9. As much conscription of wealth should be enforced as is possible without seriously crippling industrial production.

0. Conscription of wealth in peactime is dangerous in that it might lead to socialism.

1. If we conscript wealth in peactime we might as well hand the country over to the Communists.

2. I do not believe large scale conscription of wealth is possible even in war time without ruining the country's industries.

3. Conscription of wealth in peactime is too socialistic to be in harmony with our ideal of democracy.

What a person does with his ~~own~~ money is his own business, no matter how wealthy he may be.

. When a wealthy man dies the government should take over his estate.

Very heavy taxes should be put on inherited wealth.

One has a perfect right to all the wealth anyone else cares to leave him.

Conscription of wealth would be so difficult to apply fairly that it should not be attempted.

If we conscript wealth for any purpose whatsoever, we are betraying democracy to its enemies.

Perhaps heavier taxation would solve the problem of financing war, but wholesale conscription of wealth would be a big mistake.

Conscription of wealth to do away with profiteering and to direct money into its proper channels should be scientifically applied at all times.

A sliding scale of taxation increased as much as necessary in wartime should be put into operation.

43. A government has the first claim on all forms of wealth at all times.

44. Governments have no right to take private wealth unless it is dishonestly acquired, in which case the law courts can impose punishment.

45. If wealth were conscripted the ambition, initiative and driving force necessary for success in any line of work would be undermined.

46. Conscription of wealth is contrary to the ideals for which democracy is fighting.

47. Conscription of wealth would tend to pave the way for a dictatorship.

48. Conscription of wealth is the only fair policy during war time.

49. I see nothing wrong or undemocratic in the principle of conscripting wealth.

50. In time of war rich men should be publicly honored for large gifts to the government, and those who refused to give might be made the object of public disapproval, but no compulsory conscription should be introduced.

51. Life is sacred, wealth is not.

52. Conscription of wealth is fair if it ceases as soon as the war is over.

53. Wealth should be conscripted when there is danger of war, during war, and after war until war debts are paid.

54. Wealth should be conscripted only in war time and even then only if the war is fought in defense of the people's ideals.

55. Wealth conscription itself is not wrong, but its results might be bad.

56. Every resource of a country should be conscripted in time of national crisis. This would include wealth.

57. Even in war wealth should be conscripted only on a limited scale and with careful consideration of each case.

58. Incomes of less than $2000 per year should be wholly exempt from income tax.

59. Conscription of wealth, though an evil, is preferable to worse evils.

60. Conscription of wealth should apply only to war profits such as profits from the sale of munitions.

61. War profits should all be taken by the government.

62. No one should be allowed to earn over $15,000 a year at any time.

63. Conscription of wealth would destroy individual self-respect.

64. Wealth is power and rightly belongs to the government in time of need.

65. Since no one wishes to feel indebted to the government for his own economic success, it is best that everyone be free to accumulate as much wealth as he can.

66. Only excessive and unfair private earnings should be taken over by the government.

67. Anyone who has struggled hard for his wealth is entitled to keep it and to use it as he sees fit.

68. Unless conscription is necessary to save lives, property rights should be respected.

69. It would be better to limit profits and to set prices by law rather than to conscript wealth directly.

70. The government should enforce fair play between all classes, but it should not seize wealth.

71. Conscription of wealth would destroy our most valuable asset-- a sense of freedom.

72. Everyone should work for a living wage, any excess wealth being spent for the growth of scientific knowledge, cultural progress and social welfare.

73. If manpower is conscripted, wealth should not escape.

74. Without general conscription of excessive wealth, no just social order is possible.

75. Private profit is always at public expense and should therefore be eliminated.

76. Wealth should be the first thing conscripted in war time.

77. Conscription of wealth seems rather unfair in normal times. In war time it is necessary.

78. Conscription of wealth may not be democratic, but the end justified the means.

79. Only by conscripting wealth can a war be won quickly.

80. There is much to be said on both sides of the question.

81. In view of the fact that the success of modern warfare depends more on machines than on men, it is all the more essential that wealth be conscripted to pay for war materials.

82. Because it is particularly in war time that wealth piles up in a few hands, confiscation of large war profits is very necessary.

83. Wealthy people all too frequently use their wealth to escape manpower conscription.

84. Soldiers in active service during war time should be paid handsomely out of war profits.

85. All large estates should be taken over by the government upon the death of their owner.

86. Inheritance tax rates should increase with the size of the estate being 100 per cent for all inherited wealth in excess of $50,000.

87. Inheritance of more than a few thousand dollars should be prohibited.

71) Conscription of wealth may quite possibly do more harm than good

73) Conscription of wealth might tend to destroy our sense of freedom

74) The disadvantages of conscription wealth probably outweigh the advantages

75) Conscription of wealth must be under

88. It is probably inadvisable to interf
D with private profit.

89% As a general policy it is well to
D leave private wealth alone.

92% It is not easy to reconcile conscrip
u of wealth with the principa̶l̶e̶ les
democracy.

u 96% C. of w. might lead to harmful
extremes.

d. 98% The ultimate benefits of c. of w
are rather uncertain.

Conscription of Wealth   Form A

This is a study of attitudes toward conscription of wealth as a national policy. Unless otherwise indicated, the statements refer to peacetime conditions.

By conscription of wealth is meant that the government might take from the citizens, through taxes or by some form of direct levy, whatever portion of their wealth the government required. It would mean that wealth could be conscripted to the extent that the government thought necessary for the promotion of public good and welfare.

Read carefully the following statements. With some you will agree, and with others you will disagree. Regarding some you may be uncertain.

After each statement you will find the letters A (meaning agree), U (meaning uncertain) and D (meaning disagree).

If you agree with a statement, i.e., think it is true, circle the A, thus (A) . If you disagree, circle the D. In case of doubt, circle the U.

This is not an examination. Different people are expected to have different opinions.

--ooOoo--

1   Conscription of wealth to help the needy encourages laziness. A U D

2   Everyone should work for a living wage, any excess wealth
    being spent for the growth of scientific knowledge,
    cultural progress, and social welfare.   A U D

3   Conscription of wealth should apply only to large war
    profits such as those from the sale of armaments.   A U D

4   If we conscript wealth at all, we are betraying democracy
    to its enemies.   A U D

5   As a general policy it is well to leave private wealth
    alone.   A U D

6   Limited conscription of wealth in peacetime would promote
    social welfare by decreasing class distinctions.   A U D

7   Conscription of wealth to do away with all large-scale
    profiteering and to direct money into its proper channels
    should be systematically applied at all times.   A U D

8   There is much to be said on both sides of the question.   A U D

. Anyone who has struggled hard for his wealth is entitled
to keep it and use it as he sees fit.   A   U   D

. Limited conscription of wealth applied to the very wealthy
is right if the government needs the money for necessary
public services.   A   U   D

. War profits should all be taken by the government.   A   U   D

. Every resource of a country, including wealth, should be
conscripted in time of national crisis.   A   U   D

. It is not easy to reconcile conscription of wealth with
the principles of democracy.   A   U   D

. I do not believe large scale conscription of wealth is
possible even in war time without ruining the country's
industries.   A   U   D

. No one should be allowed to receive a net income of
over $15,000 in any one year.   A   U   D

. Wealth conscription itself is not wrong, but its results
might be bad.   A   U   D

. The principle of private profit is essentially wrong,
and should therefore be eliminated from state policy.   A   U   D

. Conscription of wealth in peacetime is too socialistic
to be in harmony with our ideal of democracy.   A   U   D

. Conscription of wealth, though an evil, is preferable
to worse evils.   A   U   D

. Conscription of wealth would destroy our most valuable
asset -- a sense of freedom.   A   U   D

. All large estates should be taken over by the government
upon the death of their respective owners.   A   U   D

. The disadvantages of conscripting wealth probably out-
weigh the advantages.   A   U   D

--ooOoo--

Now please select 3 of the statements with which you most thoroughly
agree, and 3 with which you most thoroughly disagree. Indicate them
by a stroke through your answers, thus (A) or (D).

Finally indicate on this scale where you judge your position would
be, by putting a cross at the appropriate place.

| 4 | -3 | -2 | -1 | 0 | +1 | +2 | +3 | +4 |

Most strongly opposed   Neutral   Most strongly in favor

ame _____   School _____   Grade ___

cupation _____

    This is a study of attitudes toward conscription of wealth as a
ational policy. Unless otherwise indicated, the statements refer to
eacetime conditions.

    By conscription of wealth is meant that the government might take
rom the citizens, through taxes or by some form of direct levy, what-
ver portion of their wealth the government required. It would mean
hat wealth could be conscripted to the extent that the government
hought necessary for the promotion of public good and welfare.

    Read carefully the following statements. With some   you will
gree, and with others you will disagree. Regarding some you may be
ncertain.

    After each statement you will find the letters A (meaning agree),
 (meaning uncertain) and D (meaning disagree).

    If you agree with a statement, i.e., think it is true, circle the A,
hus Ⓐ. If you disagree, circle the D. In case of doubt, circle
he U.

    This is not an examination. Different people are expected to have
ifferent opinions.

--ooOoo--

. Conscription of wealth is dangerous in that it might lead
to socialism.   A U D

. Governments should conscript most of the wealth within a
country before they borrow at high interest rates.   A U D

. Conscription of wealth must be undertaken with the utmost
caution.   A U D

. Governmehts have no right to take private wealth unless
it has been dishonestly acquired, in which case the matter
should be left to the law courts.   A U D

. Increased taxes on wealth would certainly be unfair in
peacetime.   A U D

. Very heavy taxes should be put on inherited wealth.   A U D

. Without general conscription of excessive wealth, no just
social order is possible.   A U D

8. The ultimate benefits of conscripting wealth are rather
uncertain.   A U D

9. Conscription of wealth would destroy individual self-
respect.   A U D

0. Although conscription of wealth may be rather unfair in
peacetime, in wartime it is necessary.   A **U** D

1. Wealth, being power, rightly belongs to the government in
time of need.   A U D

2. Conscription of wealth might lead to harmful extremes
such as wholesale confiscation of wealth.   A U D

3. Conscription of wealth is fair in wartime, but it should
cease as soon as war is over.   A U D

4. If wealth were conscripted, the ambition, initiative, and
driving force necessary for success in any line of work
would be undermined.   A U D

5. No one should be allowed to keep more wealth than he
needs to maintain a reasonable standard of living.   A U D

6. Incomes of less than $2000 per year should be wholly
exempt from income tax.   A U D

7. Everything should belong to the government to be divided
equitably among all.   A U D

8. Conscription of wealth would be so difficult to apply
fairly that it should not be attempted.   A U D

9. Income taxes might well be increased a little in the higher
income brackets.   A U D

0. What a person does with his money is his own business, no
matter how wealthy he may be.   A U D

1. Inheritance taxes should increase with the size of the
estate, rising to 100 per cent for all inherited wealth
in excess of $50,000.   A U D

2. It is probably inadvisable to interfere with private
profits.   A U D

--ooOoo--

Now please select 3 of the statements with which you most thoroughly
gree, and 3 with which you most thoroughly disagree. Indicate them by a
troke through your answers, thus Ⓐ or Ⓓ .

Finally indicate on this scale where you judge your position would be,
y putting a cross at the appropriate place

4	-3	-2	-1	0	+1	+2	+3	+4

ost strongly   Neutral   Most strongly
pposed.   in favor.

CONSCRIPTION OF WEALTH   FORM A

NAME - _____ Male, Female
                                                    (stroke out the wrong word)

                (School _____ Age _____ Grade _____
                (
at school   (Parent's Occupation _____
                (
                (Occupation you plan to follow _____

not at school   (Occupation _____

     This is a study of attitudes towards conscription of wealth as a national policy.
is not an examination. Different people are expected to have different opinions.

     Conscription of wealth, as here used, means that the government will, by increased
taxes or direct levies or both, take from those citizens who possess considerably
more than average wealth whatever portion of their wealth the government needs to promote
the welfare of all its people. It does not mean that the government will take over the
ownership of land or industries. The statements refer to peace-time conditions.

     After each statement you will find the letters A (meaning Agree), U (Uncertain),
and D (Disagree). It is probable that few, if any, statements will perfectly express
your attitude. If you agree more than you disagree with a given statement, circle the
A thus Ⓐ . If you disagree more than you agree, circle the D. If you are
uncertain, circle the U. Please mark every statement.

A state policy of conscripting wealth would almost certainly discourage individual
effort and initiative.   A   U   D

One of the crying evils of our time - inequality of income - should be attacked by
state confiscation and redistribution of excessive wealth.   A   U   D

Inheritance tax rates should increase rapidly with the size of the estate, rising
to 100 per cent for all inherited wealth in excess of, say, $25,000. A   U   D

Any general conscription of wealth during peace time would violate the democratic
principle of individual liberty.   A   U   D

The soundest general policy is to keep government taxation of private wealth at a
minimum.   A   U   D

A restricted, carefully controlled conscription of wealth policy would almost
certainly promote the general welfare of any state.   A   U   D

Conscription of wealth to do away with large-scale profiteering should be
systematically applied at all times.   A   U   D

The national debt should be gradually reduced and paid off with money obtained
from the conscription of wealth.   A   U   D

Anyone who has gained his wealth legally has a perfect right to keep it and use
it has he sees fit.   A   U   D

Limited conscription of wealth applied to the very wealthy is right if the
government needs the money for necessary public services.   A   U   D

Any governmental system which permits the piling up of great private fortunes
is wrong.   A   U   D

1. The principles upon which true democracy rests are contrary to a policy of
conscripting wealth.   A   U   D

3. I do not believe that large scale conscription of wealth is possible at any time
without ultimately crippling the countries industries.   A   U   D

4. Any clear profit or income to a private citizen in excess of $15,000 per year
should be taken by the state and spent for public welfare.   A   U   D

5. Income taxes should fall with rapidly increasing heaviness on all income in
excess of the national average.   A U D

CONSCRIPTION OF WEALTH   FORM B

Name _____   Male, Female
                                                   (Stroke out wrong word).

         (School _____   Age _____ Grade _____
         (
If at school (Parent's Occupation _____
         (
         (Occupation you plan to follow _____

If not at school (Occupation _____

     This is a study of attitudes towards conscription of wealth as a national policy.
It is not an examination. Different people are expected to have different opinions.
     Conscription of wealth, as here used, means that the government will, by
increased taxes or direct levies or both, take from those citizens who possess
considerably more than average wealth whatever portion of their wealth the government
needs to promote the welfare of all its people. It does not mean that the government
will take over the ownership of land or industries. The statements refer to peace-
time conditions.
     After each statement you will find the letters A (meaning Agree), U (Uncertain)
and D (Disagree). It is probable that few, if any, statements will perfectly express
your attitude. If you agree more than you disagree with a given statement circle
the A, thus Ⓐ . If you disagree more than you agree, circle the D. If you are
uncertain, circle the U. Please mark every statement.

1. Conscription of wealth as a national policy would threaten the foundations
   of economic life.   A   U   D

2. I believe that governments should heavily conscript wealth within a
   country before they borrow at high interest rates.   A   U   D

3. Provided that conscription of wealth does not touch those who are making
   only a moderate living, I am in favor of it.   A   U   D

4. Governments have no right to confiscate private wealth unless it has
   been dishonestly acquired.   A   U   D

5. It is unfair to make large direct levies on wealth in peace time.   A   U   D

6. Taxes on inherited wealth should be greatly increased.   A   U   D

7. It is highly improbable that a just social order will be established
   without general conscription of wealth.   A   U   D

8. Wealth should be conscripted to whatever extent is necessary for the
   relief of distress and want.   A   U   D

9. Wide inequalities of wealth in a state are both natural and desirable.   A   U   D

10. Unearned income, that is income from stocks, bonds, mortgages and the
    like, should be heavily taxed.   A   U   D

11. Citizens should not be allowed to retain more wealth than a fairly high
    standard of living requires.   A   U   D

12. There is grave danger that a policy of conscripting wealth would, once
    put into operation, lead to harmful extremes.   A   U   D

13. Conscripting of wealth would undermine the ambition, initiative and
    driving force necessary for success in any line of work.   A   U   D

14. A government is fully justified in conscripting wealth to meet an
    emergency such as a serious depression.   A   U   D

15. Wealth should be conscripted whenever, and to the extent that, public
    welfare demands it.   A   U   D

16. The present incidence of taxation upon rich and poor is essentially
    reasonable and fair.   A   U   D

17. It is the duty of a democratic government to ensure as far as possible
    the equitable distribution of the total income gained by its citizens.   A   U   D

18. Conscription of wealth would be so difficult to apply that it should
    not be attempted.   A   U   D

19. Having met all his ordinary financial obligations, a citizen should have
    the right to dispose of his honestly acquired wealth as he pleases.   A   U   D

20. Inheritance taxes should increase with the size of the estate rising to
    100 percent for all inherited wealth in excess of say $30,000.   A   U   D

21. I believe it is good policy to encourage the making of private profits
    by keeping government restriction and interference at a minimum.   A   U   D

22. Conscription of wealth would violate or endanger
    some of the principles of democracy.   A   U   D

High School Discipline

Name_____ School _____ Grade _____

   As a first step in constructing a scale to test attitudes towards High
School discipline, the two attached forms, of 29 statements each, have been
prepared. This is <u>not</u> an examination. Different people are expected to have
different opinions.
   After each statement you will find the letters A (meaning Agree), U (Uncertain)
and D (Disagree). It is probable that few, if any, of the statements will
perfectly express your attitude. If you <u>agree</u> more than you disagree with a
given statement please circle the A, thus Ⓐ . If you <u>disagree</u> more than you
agree, circle the D. If you are <u>uncertain</u>, circle the U. Please mark every
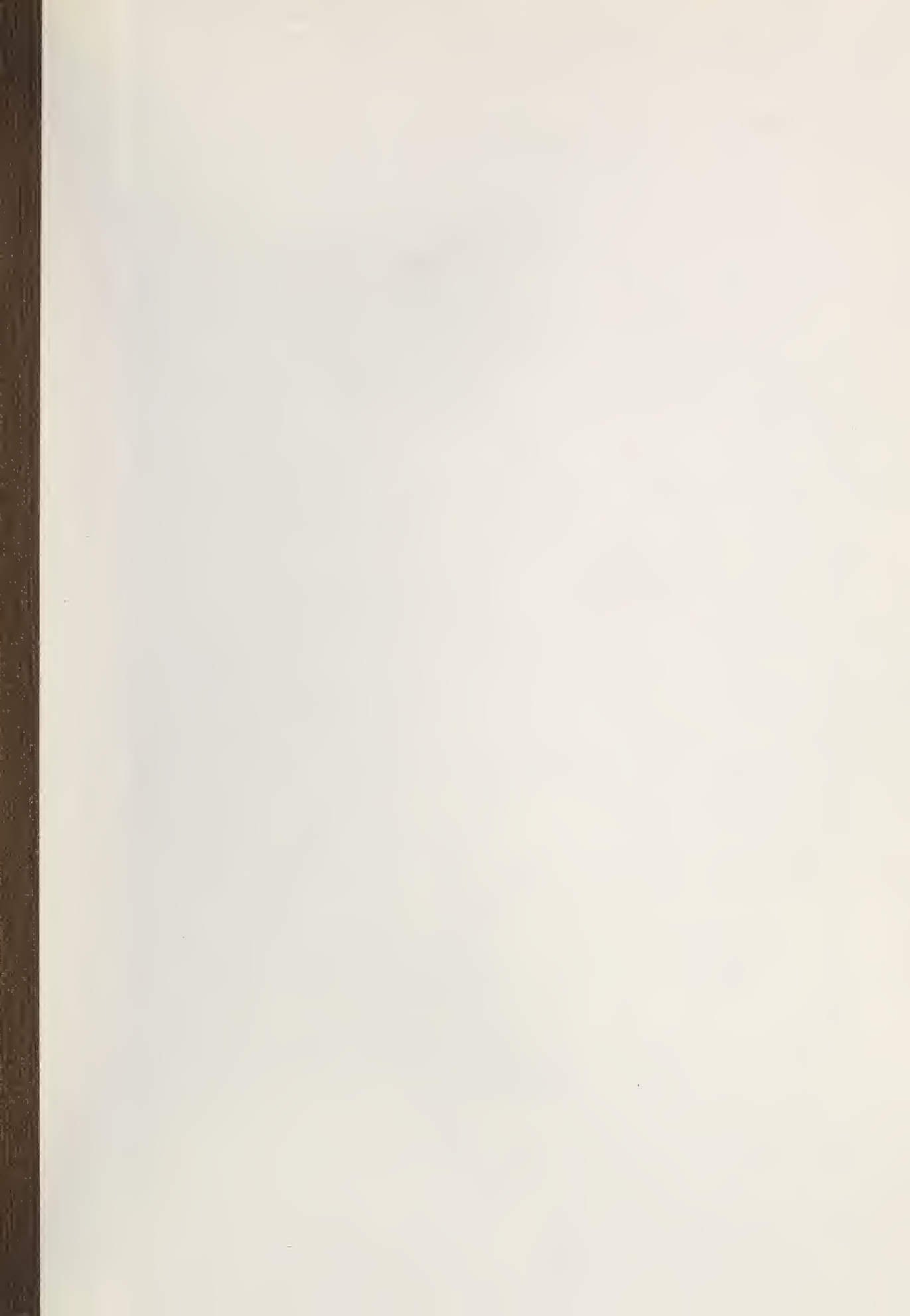statement.

FORM A

1. I believe that teachers should consistently maintain very strict discipline
   in the classroom.   A   U   D

2. When a pupil does not like his work he should not be compelled to do
   it.   A   U   D

3. I think strong discipline is necessary if students are to form strong
   characters.   A   U   D

4. Those who have first learned to obey usually make the best leaders. A   U   D

5. True democracy implies that even school children should enjoy a large measure
   of freedom.   A   U   D

6. If pupils are considerately and fairly treated disciplinary problems will
   seldom arise.   A   U   D

7. A student should be permitted to waste his own time if he wishes, provided
   he does not waste that of others.   A   U   D

8. I prefer teachers who are very mild and tolerant.   A   U   D

9. Order and progress should never be sacrificed to the ideal of
   freedom.   A   U   D

10. I prefer the teacher who is overly strict in maintaining discipline to one
    who is overly lenient.   A   U   D

11. Strict discipline tends to make pupils nervously tense and irritable. A   U   D

12. Teachers should, with or without pupil interest, insist upon many things being
    done which seem to them important.   A   U   D

13. A good teacher is feared by would-be mischief makers.   A   U   D

14. Laxity of discipline is unfavorable to good school work.   A   U   D

15. Strong discipline in school tends to destroy a pupil's self-respect. A   U   D

16. The good teacher will almost always grant requests made by students. A   U   D

17. The teacher should insist that pupils working in groups keep their conversation
    quiet and courteous.   A   U   D

18. To promote independence in his thinking, a student should be encouraged to
    question freely the wisdom of a teacher's decisions.   A   U   D

19. Strict discipline discourages the growth of strong character.   A   U   D

20. A few disciplinary rules should, whether needed or not, be enforced for the
    training provided.   A   U   D

21. Much valuable time is likely to be wasted in the classroom if discipline is not strong.   A   U   D

22. The relatively immature judgment of many High School students makes a very free system unwise.   A   U   D

23. Strict discipline is necessary to instil respect for the rights and needs of others.   A   U   D

24. Corporal punishment to High School students will almost invariably do more harm than good.   A   U   D

25. Wide freedom is favorable to a spirit of cooperation.   A   U   D

26. Since every youth differs from every other youth very few rules can apply to all.   A   U   D

27. It is undesirable that students question the wisdom of a teacher's decisions.   A   U   D

28. Wide freedom favors the growth of a pleasing personality.   A   U   D

29. Free self-expression seems to me more important than progress in school subjects.   A   U   D

FORM B

1. Strict discipline is the best kind of discipline if it is consistently and fairly administered.   A   U   D

2. Within wide limits a class should be permitted to set its own standard of discipline.   A   U   D

3. Any act of discourtesy or impertinence on the part of a pupil should be checked, if necessary by punishment.   A   U   D

4. Once rules are made, no exceptions to their enforcement should be permitted.   A   U   D

5. Youthful impulses deserve great consideration and respect.   A   U   D

6. A good deal of social maladjustment among adults could have been prevented by more thorough discipline at High School age.   A   U   D

7. Students should in large measure be allowed to do their work when they please.   A   U   D

8. I have more respect for those teachers who show kindness and sympathy than for those who are severe and exacting.   A   U   D

9. Freedom from discipline often breeds an objectionable attitude of self-importance.   A   U   D

10. Certain high school students would profit from the occasional application of corporal punishment.   A   U   D

11. Rigid discipline tends to dispel the happy atmosphere which should prevail in a classroom.   A   U   D

12. It is generally true that disorder and confusion result from the relaxation of disciplinary control.   A   U   D

13. The majority of high school pupils will take unfair advantage of a teacher's lenience.   A   U   D

14. Strict discipline at the high school age is a vital necessity.   A   U   D

15. Rigid discipline in school tends to undermine a student's self-confidence.   A   U   D

16. Students who show a well-developed sense of personal responsibility should be allowed a good deal of freedom.   A   U   D

17. Prospective citizens of a democracy must be prepared for responsibility. A   U   D
    by thorough training in obedience.

18. Strict discipline fosters an undesirable habit of blind obedience to
    duty.   A   U   D

19. The growth of personal responsibility is promoted by freedom to do as one
    chooses.   A   U   D

20. If punishment is severe it will not often be required.   A   U   D.

21. Strict discipline produces the most efficient students.   A   U   D

22. Conspicuous discipline assists teachers to gain and retain the respect of
    their classes.   A   U   D

23. Firm discipline is needed to teach cooperation.   A   U   D

24. Strict discipline tends to produce socially maladjusted persons.   A   U   D

25. With a little guidance from teachers, student organizations can satisfactorily
    handle most disciplinary problems.   A   U   D

26. An honor system can make discipline imposed by the teacher largely
    superfluous.   A   U   D

27. The development of pleasing personalities is fostered by strict
    discipline.   A   U   D

28. High School pupils should not be required to observe rules for which the
    majority do not see a definite need.   A   U   D

29. If high school students are treated as responsible adults they will act
    as such.   A   U   D